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The Governor's Blue Ribbon Transportation Task Force



Implementation Report for Maximizing the Efficient Use of Iowa's Road Use Tax Fund



**Iowa Department
of Transportation**

March 1998

Blue Ribbon Transportation Task Force Accomplishments

March 1998

This report documents the Iowa Department of Transportation's accomplishments and ongoing efforts in response to 39 recommendations proposed by the Governor's Blue Ribbon Transportation Task Force at the end of 1995. Governor Terry Branstad challenged the Task Force to "maximize the benefits of each dollar spent from the Road Use Tax Fund."

The next six pages serve as our executive summary. Each of the 39 recommendations and implementation highlights are listed and color-coded to show their status.

Blue: accomplished
Green: partially accomplished
Black: deferred; in process, or not pursued.

Thirty-four of the 39 recommendations have been accomplished or partially accomplished in the intervening two years, and work continues today.

Blue Ribbon Transportation Task Force Accomplishments

March 1998

Recommendation	Accomplishments
1. Establish technology champion Status: Accomplished	Multijurisdictional collaboration forum established to coordinate and promote technology standards, adoption and training in transportation units at all levels of government.
2. Streamline and automate paperwork processes Status: Accomplished; more being done	Eliminated requirement for EEO/AA compliance documentation with each project bid. EEO/AA evaluations will also change from "each project" to annual. Eliminated the need for an annual written safety policy and written safety policies with each project. Lessened the administrative burden of certified payrolls. Discontinued board of supervisors' signatures on progress vouchers. Exploring the feasibility of electronic fund transfers to contractors. DOT continues to explore alternative ways in which it can receive the information contained in the Subcontractor Request and Approval form. Adopted procedures to allow local jurisdictions to let federally-funded "enhancement" projects locally on a pilot project basis. Formed a team to review and improve the federal-aid project development procedures packet. Conducting an internal review of the environmental procedures for enhancement projects. Work on the idea of eliminating the need for local governments to provide up-front funding of federal-aid projects through a statewide revolving fund and universal pay system continues.
3. Deploy current automation technologies more quickly within the Iowa DOT Status: Partially accomplished; more being done.	More technology support at DOT by reassigning positions; peer support groups being used; more user training and standardization; \$1.2 million received in FY98 budget to speed up certain automation efforts; and \$1.5 million internally reallocated to advance technology deployment.
4. Support technology adoption by local governments Status: Accomplished	Multijurisdictional collaboration forum established to coordinate and promote technology standards, adoption and training in transportation units at all levels of government.
5. Give local governments the opportunity to buy technology through Iowa DOT or DGS contracts Status: Accomplished	Purchasing information now on-line on the Internet. Informational brochures distributed to local governments.
6. Re-engineer the Iowa DOT's management information systems Status: Deferred, pending enterprise mainframe; some steps accomplished.	Connecting all DOT offices to LAN. Implementing electronic record management system. Aggressively working on enhancing and integrating various databases, including a maintenance management system, construction administration system and an equipment management system.

Blue Ribbon Transportation Task Force Accomplishments

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Recommendation	Accomplishments
7. Maximize the use of ICN for training and meetings Status: Accomplished	The DOT obligated funds in FY97 to purchase interactive video conferencing equipment and installed it in seven DOT locations. The system is being used for a variety of purposes, including general meetings and training.
8. Put purchasing and information for highway contractors on-line Status: Partially accomplished	Contractors were already able to receive bidding and other information on-line via CompuServe™ and the Center for Transportation Research and Education bulletin board. The DOT's offices of Design and Bridges/Structures continue to work toward electronic plans. Work is also continuing on the pursuit of electronic and on-line bid submittal.
9. Develop a coordinated, statewide GIS/GPS network for transportation Status: Partially accomplished; more being done	In-house acquisition of GPS surveying equipment has eliminated cost of rental. GPS saves approximately 40% time in collecting field data. Improved service for preliminary survey, archeological locations, and processing excess land.
10. Share real-time weather information through joint contracting Status: Accomplished	Real-time weather information available to local governments and others for about \$100 a month. Training opportunity provided.
11. Encourage the development of regional data bases for transportation planning Status: Partially accomplished; more being done	Automated process to support regional transportation programming under development.
12. Develop a statewide highway information communications network Status: Accomplished	Multijurisdictional collaboration forum established to coordinate and promote compatible communication and information systems among transportation units.
13. Investigate possible funding sources for technology investments Status: Accomplished	Additional funding sources for technology were found. \$1.2 million in additional technology investment in FY98 appropriation. \$1.5 million also reallocated internally to advance technology deployment.

Blue Ribbon Transportation Task Force Accomplishments

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Recommendation	Accomplishments
14. Exempt contractor materials used in public projects from the Iowa sales tax Status: Accomplished	Agreed on a formula to estimate sales/use taxes on these contracts. The plan was adopted by the 1997 General Assembly and signed by Governor Branstad. It took effect on July 1, 1997.
15. Adopt common standards for construction specifications and construction equipment Status: In process	Surveys were done to determine how much interest there was concerning adopting a common set of design standards and construction specifications. Final analysis of the surveys is estimated to be completed by the first part of 1998.
16. Form a transportation sharing committee Status: Accomplished	Sharing Task Force serves in this capacity.
17. Develop pilot sharing projects Status: Partially accomplished; more being done	Savings to all parties in two garage sharing projects. Savings and improved services are expected for all parties in two county-wide sharing pilot projects.
18. Encourage the development of voluntary transportation districts Status: Deferred	This recommendation will be revisited when sharing is more mature and more broadly established among Iowa transportation entities.
19. Provide technical assistance for sharing Status: Partially accomplished; more being done	Increased collaboration and sharing by the government units participating in the pilot sharing projects. Models to share with other jurisdictions.
20. Promote the leasing of Iowa DOT equipment by local governments Status: Accomplished	Simplified lease agreement and procedures adopted.
21. Modify or remove Section 28E.20 from the Iowa Code to promote intergovernmental equipment purchases Status: Accomplished	Iowa Code Section 28E.20 was repealed during the 1996 Legislative session.

Blue Ribbon Transportation Task Force Accomplishments

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Recommendation	Accomplishments
22. Assess the possibility of leasing the DOT's light-and medium-duty fleet Status: Partially accomplished; more being done	Consultant recommendations being analyzed.
23. Assess the possibility of leasing of heavy-duty equipment fleet Status: Partially accomplished; more being done	Consultant recommendations being analyzed.
24. Assess the possibility of outsourcing vehicle maintenance Status: Partially accomplished; more being done	Consultant recommendations being analyzed.
25. Make cities and counties aware of outsourcing Status: Deferred	Consultant recommendations being analyzed.
26. Conduct outside assessment of outsourcing possibilities Status: Accomplished	Consultant study completed. Recommendations being analyzed.
27. Investigate other promising outsourcing opportunities Status: Accomplished	Two managed competition pilot projects completed.
28. Do not outsource core business functions of Iowa DOT Status: Accomplished	Core competencies not outsourced.

Blue Ribbon Transportation Task Force Accomplishments

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Recommendation	Accomplishments
29. Reevaluate off-the-top diversions from the Road Use Tax Fund Status: Accomplished	Off-the-top diversions from the Road Use Tax Fund were removed including \$1 million per year for recreational trails, \$3.65 million per year for the expenses of the value-added agricultural products and processes, and \$350,000 per year for the renewable fuels and coproducts.
30. Credit overweight truck and truck safety fines to the Road Use Tax Fund Status: Accomplished	Truck fines are now being credited to the RUTF adding about \$3 million per year to the fund.
31. Consolidate DOT maintenance garages Status: Partially accomplished	Moratorium on the closing of Iowa DOT garages issued by the state legislature in 1989. Garage sharing projects reduce redundancy among state, county, and local maintenance facilities.
32. Encourage more partnering Status: Accomplished	Partnering is being extended to the design phase of selected projects. Partnering has been done with the Consulting Engineers Council and the State Historical Preservation Office. Top-of-Iowa public-private partnership will save taxpayers \$3.4 million over 30 years. Partnering is also employed to address site-specific concerns.
33. Employ "Super-Two" design standards where appropriate Status: Accomplished	Specific design standards for the "Super-Two" are being currently developed as part of the Highway System Plan. The adopted State Transportation Plan includes investment strategies that include "Super-Two" development.
34. Adopt thicker pavement design standards Status: Accomplished	The DOT's existing pavement design practice optimizes economic return of pavement thickness saving \$1,000-\$1,500 per mile over the pavement's 30 to 40 year life span.
35. Program preventative maintenance Status: Accomplished	The programming of preventative maintenance, which includes timely resurfacing and rehabilitation (better known as preservation) projects, has been used and will continue to be a priority in the future.

Blue Ribbon Transportation Task Force Accomplishments

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Recommendation	Accomplishments
36. Review and revise Quadrennial Needs Study Status: Partially accomplished	The Iowa County Engineers' Association is currently looking into the possibility of using its pavement management data as input into future needs studies. The Public Policy Center at the University of Iowa has completed a study proposed by the Iowa County Engineers' Association which addresses the distribution of state road use tax funds to counties. The Engineering Research Institute at ISU completed a study in December 1993 which was designed to answer questions posed by members of the Iowa County Engineers' Association concerning the sensitivity of the key variables used in developing the Quadrennial Needs Study.
37. Fund DOT building projects out of the infrastructure fund Status: Not pursued	The DOT has not taken any action on this recommendation, choosing instead to defer to legislative decision-making on the use of these funds.
38. Study alternatives for system responsibility Status: Partially accomplished	DOT identifies routes eligible for transfer and works with cities and counties toward agreement.
39. Make no major changes to the state's bid letting or project phasing practices, including the optional tying of bidding on construction projects Status: Accomplished	DOT Director and Contracting Task Force reaffirmed the DOT's letting and phasing policies.

BLUE RIBBON TRANSPORTATION TASK FORCE

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I. Introduction and Background

As part of the continuing effort to provide Iowans with the maximum benefit from each dollar spent on Iowa roads, Governor Terry Branstad established a Blue Ribbon Transportation Task Force (BRTF) in the summer of 1995 to explore ways Iowa could more efficiently spend its road dollars.

"In this day and age of heightened fiscal awareness, this task force will play a very important role in maximizing the resources directed toward road construction and maintenance. . . We must find better methods in which to maximize the benefits of each dollar spent from the Road Use Tax Fund (RUTF) in pursuit of adequate, safe, and efficient transportation."

*Governor Terry Branstad
June 21, 1995*

Former Iowa Transportation Commission members Suzan Stewart (MidAmerican Energy Co.) and Marlin "Hap" Volz (Norwest Bank of Iowa) chaired and co-chaired the BRTF. They were joined by 17 private and public sector members and announced 39 recommendations in their final report issued at the end of 1995. The recommendations are listed in chapter "II. Implementation", grouped according to the Iowa Department of Transportation (DOT) implementation task force to which they were assigned.

II. Implementation

A review and implementation process within the DOT was initiated in January 1996 by DOT Director Darrel Rensink. With the assistance of Jim Chrisinger, coordinator for BRTF implementation, the DOT established six implementation task forces to pursue the recommendations (Figure 1).

The Blue Ribbon Task Force's 39 recommendations were divided among the implementation task forces, which became the focal points for evaluation and implementation. As the Governor's Task Force itself acknowledged, the recommendations had been formulated quickly. Further review and analysis were needed to ensure that implementation was feasible and would indeed lead to better spending of road fund dollars. The implementation task forces conducted this review and analysis and then developed specific strategies for implementation.

To obtain the most beneficial implementation for all Iowa transportation stakeholders, the DOT implementation task forces included many from outside the DOT: county engineers, city officials, contractors, AFSCME representatives, consultants, and federal highway representatives. A complete listing of implementation task force members appears as Appendix A. The task forces heard from additional experts, used specialized consultant services to help them in their evaluations, and sought input from many other sources.

The BRTF recommendations and the task forces to which they were assigned are (with a number corresponding to their order of appearance in the original BRTF report):

Contracting Task Force

- Streamline and automate paperwork processes(#2)
- Put purchasing and information for highway contractors "on-line" (with Information Technology Task Force)(#8)
- Exempt contractor materials used in public projects from the Iowa sales tax (#14)
- Adopt common standards for construction specifications and construction equipment (with Sharing Task Force) (#15)
- Encourage more partnering (#32)
- Adopt thicker pavement design standards(#34)
- Make no major changes to the state's bid letting or project phasing policies, including the optional tying of bidding on construction projects (#39)

**Figure 1
Implementation Task Forces**

Task Force	Chair/Co-Chairs
Information Technologies	<i>Nancy Richardson</i> , Director, Operations & Finance Division <i>Ian MacGillivray</i> , Director, Engineering Division
Intergovernmental Sharing	<i>Neil Volmer</i> , Director, Maintenance Division
Outsourcing	<i>Neil Volmer</i> , Director, Maintenance Division <i>Nancy Richardson</i> , Director, Operations & Finance Division
Contracting	<i>Tom Cackler</i> , Director, Project Development Division
Planning and Programming	<i>Dennis Tice</i> , Director, Planning & Programming Division
Legislation	<i>Darrel Rensink</i> , Director, Iowa DOT

BLUE RIBBON TRANSPORTATION TASK FORCE

Information Technologies Task Force

- Establish a technology champion (#1)
- Deploy current automation technologies more quickly within the Iowa DOT (#3)
- Support technology adoption by local governments (#4)
- Give local governments the opportunity to buy technology through Iowa DOT or DGS (Iowa Department of General Services) contracts (#5)
- Put purchasing and information for highway contractors "on-line" (with Contracting Task Force)(#8)
- Re-engineer the Iowa DOT's management information systems (#6)
- Maximize the use of Iowa Communications Network (ICN) for training and meetings (#7)
- Develop a coordinated statewide GIS/GPS (Global Information System/Global Positioning System) network for transportation (#9)
- Encourage the development of regional databases for transportation programming (#11)
- Develop a statewide highway information communications network (#12)
- Investigate possible funding sources for technology investments (#13)

Legislation Task Force

- Re-evaluate off-the-top diversions from the Road Use Tax Fund (RUTF) (#29)
- Credit overweight truck and truck safety fines to Road Use Tax Fund (RUTF) (#30)
- Fund Iowa DOT building projects out of the infrastructure fund (#37)

Outsourcing Task Force

- Assess the possibility of leasing the DOT's light- and medium-duty fleet (#22)
- Assess the possibility of leasing of heavy equipment fleet (#23)
- Assess the possibility of outsourcing vehicle maintenance (#24)
- Make cities and counties aware of outsourcing (#25)
- Conduct outside assessment of outsourcing possibilities (#26)
- Investigate other promising outsourcing opportunities (#27)
- Do not outsource core business functions of the Iowa DOT (#28)

Planning and Programming Task Force

- Employ "Super Two" design standards where appropriate (#33)
- Program preventive maintenance (#35)
- Review and revise Quadrennial Needs Study (#36)
- Study alternatives for system responsibility (#38)

Intergovernmental Sharing Task Force

- Share real-time weather information through joint contracting (#10)
- Adopt common standards for construction specifications and construction equipment (with Contracting Task Force) (#15)
- Form a transportation sharing committee (#16)
- Develop pilot sharing projects (#17)
- Encourage the development of voluntary transportation districts (#18)
- Provide technical assistance for sharing (#19)
- Promote the leasing of Iowa DOT equipment by local governments (#20)

- Modify or remove Section 28E.20 from the Iowa Code to promote intergovernmental equipment purchases (#21)

- Consolidate DOT maintenance garages (#31)

DOT Director Darrel Rensink also established an "Opportunity Evaluation Committee" (OEC), which served as an advisory panel for him on BRTF implementation (Figure 2). The OEC reviewed and commented on a broad range of implementation strategies and plans.

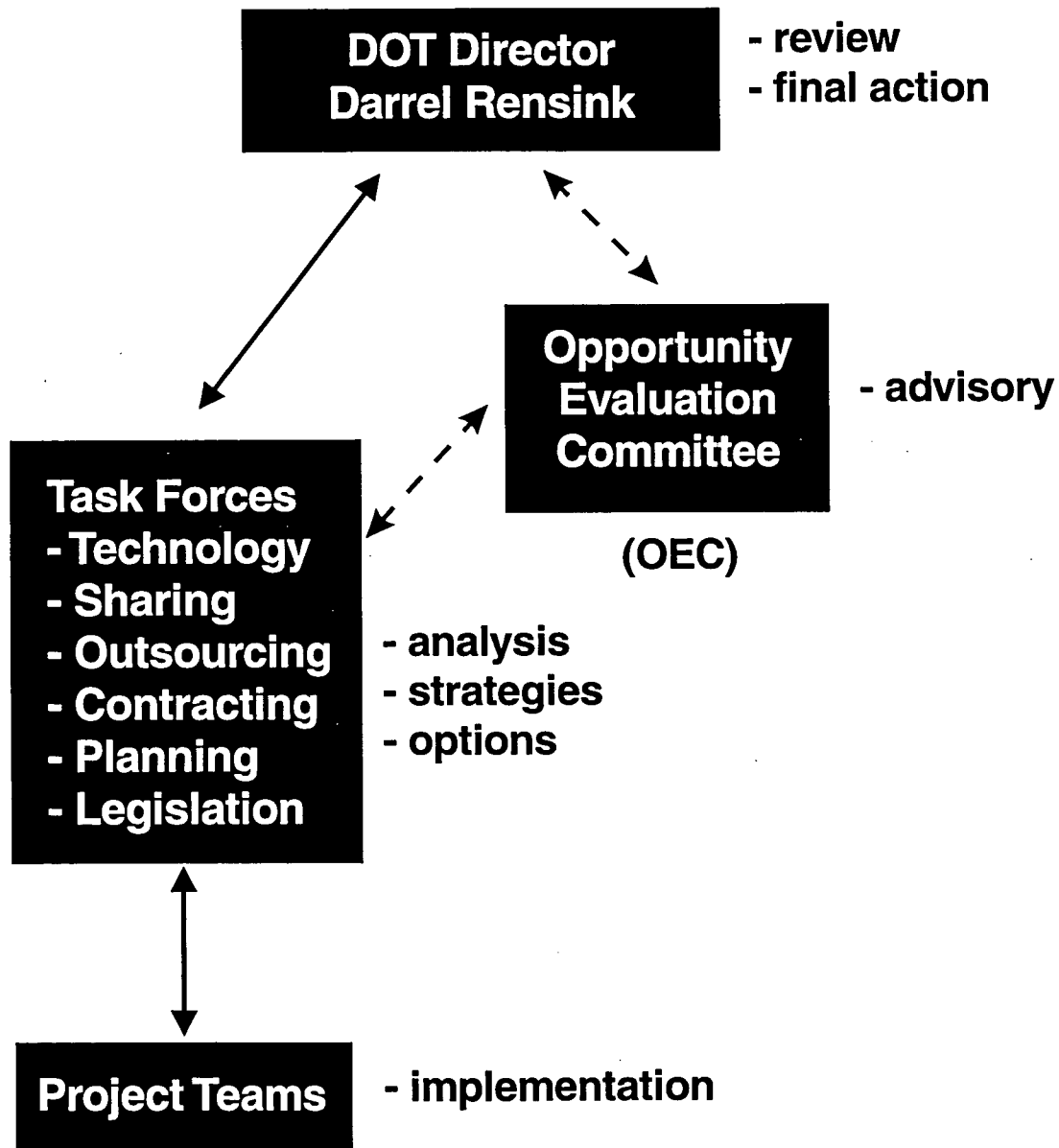
The OEC met five times and provided the task forces and others at the DOT with many thoughtful suggestions and ideas, both during the task forces' evaluations and in review of their preliminary conclusions.

Figure 3 on the next page outlines the structure for BRTF implementation at DOT.

**Figure 2
Opportunity Evaluation Committee**

Jim Aipperspach	President, Iowa Association of Business and Industry
Jim Chrisinger	Executive Assistant to the Director, Special Projects, Iowa Department of Transportation
Mary Christy	Director, Director's Staff Division, Iowa Department of Transportation
Jan Corderman	President, American Federation of State, County and Municipal Employees
Catherine Dunn	Chair, Iowa Transportation Commission and President, Clarke College
Royce Fichtner	Marshall County Engineer, representing the Iowa Association of Counties
Colin Jensen	President, Irving F. Jensen Co., Inc. (BRTF member)
Jerry Moore	Research Analyst, Iowa League of Cities
Lloyd Mullins	President, Iowa Good Roads Association
Scott Newhard	Director, Public Affairs, Associated General Contractors of Iowa
George Price	State Operations Manager, Iowa Department of Management
David Reynolds	Legislative Analyst, Legislative Service Bureau
Loretta Van Wyk	Vice-president, Van Wyk Freight Lines (BRTF member)

Figure 3
Structure for the
Implementation of the
BRTF Recommendations



III. Accomplishments and Ongoing Efforts

While implementation of the BRTF recommendations continues at the DOT and with other partners, this report—compiled almost two years after the original recommendations were made—provides an opportunity to assess achievements. Most of the recommendations have been accomplished or are in the process of being accomplished. Other projects triggered by the recommendations are long-term efforts which will continue.

Throughout implementation, DOT monitored progress through a "scorecard" document, the most recent version of which is included as Appendix B. A current summary of the status of the 39 recommendations shows (including a numerical listing of the recommendations in each category):

Number of Recommendations	Status
22	Accomplished or being accomplished through systems in place and working; no further action needed by the task force. (##1,2,4,5,7,10,12,13,14,16,20,21,26,27,28,29,30,32,33,34,35,39)
12	Partially accomplished, with the remaining implementation in progress; only continued monitoring required by the task force. (##3,8,9,11,17,19,22,23,24,31,36,38)
3	Currently deferred pending other decisions or actions. (##6,18,25)
1	In process. (#15)
1	Decision not to pursue. (#37)
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39	TOTAL

IV. Implementation Results by Task Force Group

A. Contracting

Recommendation: Streamline and automate paperwork processes (#2)

The BRTF had recommended that the Iowa DOT accelerate the streamlining of paperwork processes that are imposed on both contractors and local governments. The BRTF also recommended that once these processes had been streamlined, the remaining processes be automated to the extent possible.

Actions taken in response to this BRTF recommendation were pursued through a Project Administration Working Group and a Program Administration Working Group. Both groups consulted with those who bear the responsibility for paperwork and sought target areas which users felt were most burdensome and least value-added.

Project Administration Working Group

- **Eliminated requirement for EEO/AA compliance documentation with each project bid.** Instead, an annual submittal will be kept on file. This change saves time and paperwork for contractors, the DOT and counties.

- In addition, **EEO/AA evaluations will also change from "each project" to annual**, reducing the number of evaluations required. Implemented in the February 1997 letting.

- Contractors also suggested that **eliminating the need for an annual written safety policy and written safety policies with each project** could also streamline paperwork. Upon investigation, the task force learned that the policy had been changed earlier, but that many in the field were unaware of the change. In response, on November 6, 1996, the Office of Construction issued a clarifying memorandum to field administering offices and the Local Systems Office. This policy change reduces the paperwork burden for contractors.

- The task force sought ways to **lessen the administrative burden of weekly certified payrolls required by federal rules.** While the group's work could not identify a way to change the federal requirement of weekly submittal, DOT is moving forward on a less burdensome monitoring process oriented toward providing information and responding to complaints rather than interviewing on every project. A pilot project is now underway with a contractor in eastern Iowa.

- The DOT's 1997 policy bill, passed and signed by the Governor, included a provision **discontinuing board of supervisors' signatures on progress vouchers.** County engineers had requested this change to save them time and paperwork. This results in less bureaucracy by eliminating the need for two county signatures (county engineer and a board of supervisors member) on every progress voucher. This can save up to two weeks, especially if the board had to have it on its meeting agenda before the voucher could be signed. The DOT processes at least 200 county projects each year. If there was only one progress voucher (sometimes there can be many more) per project, this would save up to 800 weeks in processing time for the counties each year. This allows the contractors to be paid that much sooner.

- DOT and the Department of Revenue and Finance are **exploring the feasibility of electronic fund transfers to contractors.**

- In what will likely be a longer-term effort, **DOT continues to explore alternative ways in which it can receive the information contained in the Subcontractor Request and Approval Form.** Options to lessen the burden on contractors include electronic submittal compatible with the "Site Manager" software. DOT is also surveying other states.

Program Administration Working Group

- The Office of Local Systems, Federal Highway Administration (FHWA), and the Office of Contracts have **adopted procedures to allow local jurisdictions to let federally-funded "enhancement" projects locally on a pilot project basis.** Enhancement projects under \$100,000 may now be let locally. Local jurisdictions indicate they can save at least six weeks in the letting process from the time they get their final plans approved. They can process a local letting in four weeks, whereas the Iowa DOT requires 10 weeks. Based on proposed or programmed enhancement projects that meet the "under \$100,000" criteria, the DOT estimates at least 20 projects will take advantage of this pilot project. This could save up to 120 weeks a year in processing time. The Office of Contracts is also working to reduce paper use and the processing time between final plans and the letting by instituting "print on demand" capacity (electronic handling of drawings).

- Two process review teams are currently at work: (1) the Office of Local Systems has **formed a team to review and improve the federal-aid project development procedures packet**; and (2) the Office of Project Planning is **conducting an internal review of the environmental procedures for enhancement projects** and will soon be participating in a review of environmental concurrence requirements.

• Another proposal -- to eliminate the need for local governments to provide up-front funding of federal-aid projects through a statewide revolving fund and universal pay system -- met with mixed support. In general, counties supported the concept and cities did not. Such a system would speed payments to contractors, lessen local government paperwork, ease local cash flow problems, and establish uniformity of payments on federal-aid projects let through the DOT. **Work on this idea continues.**

Recommendation: Exempt contractor materials used in public projects from the Iowa sales tax (#14)

The BRTF recommended that contractors be granted an exemption from sales and use tax imposed on the purchase of materials that are to be used in highway projects paid for by federal, state, or local government highway funds.

Under the old system, contractors paid sales and use tax on their materials and at the end of the project documented the amount of sales and use tax paid so the same amount could be transferred from the General Fund back to the Road Use Tax Fund. The BRTF recommendation suggested that these purchases be exempt from sales/use tax.

• Three-way discussions between the DOT, contractors and the Department of Revenue and Finance resulted in a consensus that the system was unduly expensive, time consuming and burdensome, but that exempting contractors from paying sales/use tax on DOT projects was not the best solution. Instead, the parties **agreed on a formula to estimate sales/use taxes on these contracts. This plan was adopted by the 1997 General Assembly and signed by Governor Branstad. It took effect on July 1, 1997.**

The formula approach eliminates substantial paperwork and delays for contractors and the DOT. Sales/use tax compliance documentation was the single most common reason for delay in final project payments. The DOT does assume the burden of building and maintaining a materials cost database which supports the formula.

The DOT estimates contractors prepared approximately 2,000 sales tax forms each year. Assuming they spend an average of one hour for each in determining material costs and sales tax paid, 2,000 hours of administrative effort will be saved annually. There will be a small increase in administrative effort by the Office of Construction in keeping the database current.

Recommendation: Encourage more partnering (#32)

The BRTF recommended that Iowa's transportation community expand the number of partner projects among all levels of government and with the private sector. The DOT has done so on several fronts:

• **Partnering is being extended to the design phase of selected projects**, achieving more and earlier contractor and field construction input. Design partnering is currently being used in the U.S. 71 Iowa Great Lakes project, the U.S. 218 bypass at Mount Pleasant, in Fremont County on Iowa 2, and will be used for I-235 in Des Moines.

• A "constructability" working group drafted recommendations which are now part of the DOT Policy and Procedures Manual. Best candidates for constructability reviews include: major corridors with foreseen difficulties, major bridges, environmentally sensitive projects, and major urban corridors.

"Constructability" partnering is another example of the department seeking more and earlier input from contractors in construction projects. In addition to contractor input during the design phase, constructability reviews can also take place at the field exam and at the pre-bid meeting. In all these cases, contractors can contribute ideas and suggestions that will lower costs and increase value.

• **DOT's Value Engineering (VE)** represents another kind of design partnering. This program **encourages contractors to submit modifications to contract documents**; modifications that reduce costs without compromising quality or safety. Savings to the DOT are shared equally with the contractor. Over the last two federal fiscal years, 39 proposals have been received and 24 accepted. Reduced construction costs of \$762,958 can be attributed to the VE program, which maximizes the use of the RUTF.

• In addition, **partnering has been done with the Consulting Engineers Council (CEC) and the State Historical Preservation Office.** The benefits of partnering include improving communications, providing a forum for resolving issues, and gaining local "buy-in."

• **Public-private partnerships** such as the Top-of-Iowa rest area/welcome center in north central Iowa, which will save taxpayers \$3.4 million over 30 years, **represent another example of innovative partnering at DOT.**

BLUE RIBBON TRANSPORTATION TASK FORCE

• Partnering is also employed to address site-specific concerns such as in the case of the U.S. 218/Highland School crossings in Washington County.

(See also the construction project partnering chart attached as Appendix C.)

Recommendation: Put purchasing and information for highway contractors "on-line" (#8)

The BRTF recommended that the Iowa DOT place all information for road contractors "on-line" so that contractors could access it electronically. Their recommendation included all county and city projects let through the Iowa DOT, with the ultimate goal of establishing on-line bidding. The BRTF also recommended that the department put other types of purchasing, for instance for materials and personal services, on-line.

The BRTF recommendations expanded on work already accomplished at the DOT.

• Contractors were already able to receive bidding and other information on-line via CompuServe™ and the Center for Transportation Research and Education (CTRE) bulletin board. Processes have already been expedited as 50 percent of contract line items are received electronically via diskettes. On-line transactions reduce staff and contractor time and lower paper, printing, storage, handling and mailing costs. Electronic capture of information also facilitates processing, analysis and storage.

• To economically provide letting information on CD-ROM, 100 percent electronic plans are needed. The DOT's offices of Design and Bridges/Structures continue to work toward electronic plans. The DOT would like to put all this information on the Internet at some time in the future.

• This working group continues to pursue electronic and on-line bid submittal. DOT is now developing the needed software in partnership with five other states and expects the system to be in place sometime in 1998. As a prerequisite for final action, the 1998 session of the General Assembly will be asked to address issues associated with electronic bid submittals and electronic signatures.

Recommendation: Adopt thicker pavement design standards (#34)

The BRTF recommended the adoption of a thicker pavement design where warranted by heavy truck and bus traffic.

The DOT's existing practice optimizes economic return of pavement thickness over an anticipated 40-year life span. This practice means an estimated annual saving of \$1,000-\$1,500 per mile attributable to the greater return from using a 30- to 40-year life span for the design of a two-lane pavement. The process optimizes first cost (construction) and continuing costs (maintenance and rehabilitation/resurfacing) over the expected life of the pavement.

Recommendation: Make no major changes to the state's bid letting or project phasing practices, including the optional tying of bidding on construction projects (#39)

The BRTF recommended no major changes in state project phasing. The task force, however, did recommend that the Iowa DOT continue its innovative practice of allowing optional tying of bidding on construction projects.

The DOT concurred with the BRTF's recommendation and the DOT Director and Contracting Task Force reaffirmed DOT's letting and phasing policies. These policies contributed to \$14 million in savings in FY 1996.

Recommendation: Adopt common standards for construction specifications and construction equipment (#15)

The BRTF recommended that the Iowa DOT and local governments adopt as many common standards as possible for construction projects and for construction and maintenance equipment.

In response to that recommendation, a working group surveyed the municipalities of Iowa, all state DOTs, a good sampling of contractors bidding on work in Iowa, and a sampling of consultants performing design functions for various governmental agencies of Iowa. These surveys were done to determine how much interest there was concerning adopting a common set of design standards and construction specifications.

The initial review of the surveys indicate general support across much of the state for moving toward a common set of design standards and construction specifications. The final analysis of the surveys is estimated to be completed early in 1998.

The benefits of adopting a common set of design standards and construction specifications include lowering construction and design costs. The lower costs could be realized from spending less time becoming familiar with the various sets of standards and specifications currently in use.

B. Information Technologies (IT)

The IT Task Force prioritized the 10 BRTF recommendations related to technology to determine the order in which they wished to address them. The prioritized order established by the committee is shown in Figure 4.

The Technology Task Force next turned its attention to developing work programs for the top four recommendations. Later, the Technology Task Force determined that, of the remaining six IT-related recommendations, all but one was either being addressed as a subset of one of the top four recommendations, or was already receiving attention by the DOT and others, and, therefore, did not warrant further independent analysis by the task force. The one remaining recommendation the task force believed warranted further analysis was: establish a technology champion. Therefore, the task force also developed a work program for that recommendation.

As it developed its work programs, the task force recognized additional information was needed to adequately assess the viability and value of the four recommendations. An internal DOT survey provided additional information relative to the recommendation to deploy information technology more rapidly at the DOT. An external survey of Iowa's counties and cities provided additional

data/information relative to the other three of the first four recommendations that the task force had identified for attention.

The internal survey was distributed in August 1996 to all DOT divisions and offices. Responses were requested by office or work unit, not by individual employees. Approximately 50 useful replies were received from offices and work units representing all eight DOT divisions and representing both field work units and central office units. In general, the survey was structured to identify what respondents felt about the availability of automation equipment, the existence of or access to data, and the ability to extract desired information (including access to needed software).

The external survey was distributed in November 1996 to all 99 counties, to cities with a population of 1,000 or more, and to a representative sample of cities with a population under 1,000. The response rate was high: 77 percent (482 responses). The survey was structured to determine the current level and type of automation and communication technology in local jurisdictions, their desires, and the perceived barriers to achieving their desire. (Appendix D - Information Technology Survey)

Figure 4
Technology Recommendations Priority Listing

Priority	Recommendation Number
1. Support technology adoption by local governments	(#4)
2. Develop a statewide highway information communications network	(#12)
3. Deploy current automation technologies more quickly within the Iowa DOT	(#3)
4. Give local governments the opportunity to purchase technology through Iowa DOT or DGS contracts	(#5)
5. Establish a technology champion	(#1)
6. Maximize the use of the Iowa Communications Network for training and meetings	(#7)
7. Develop a coordinated, statewide GIS/GPS network for transportation	(#9)
8. Encourage the development of regional databases for transportation programming	(#11)
9. Investigate possible funding sources for technology investments	(#13)
10. Re-engineer the Iowa DOT's management information systems	(#6)

Recommendation: Support technology adoption by local governments (#4)

Recommendation: Develop a statewide highway information communications network (#12)

Recommendation: Establish a technology champion (#1)

The discussion of these three BRTF recommendations are combined below because of their close relationship.

The BRTF recommended that a technology champion be established to spearhead the adoption of new technologies within the DOT and the broader transportation enterprise in Iowa.

- Prior to establishing a champion, the Technology Task Force moved first to understand the current level of automation and communication technology deployment and use among local jurisdictions, and then to get a sense of where the local jurisdictions wished to go with technology in the foreseeable future. Several questions in the external survey were targeted at getting that information.

When asked what assistance they wanted the DOT to provide in the use of technologies, over half of the respondents cited financial and training and around one-third also cited planning, applications development and applications standardization. The IT Task Force believed the best way to facilitate this type of supportive relationship between DOT and local jurisdictions was to create an opportunity for all to discuss, share, brainstorm, plan and implement technological enhancements. By jointly planning technological advancement, the three jurisdictions can look for ways to share resources, transfer technology, share data, help each other, and work toward common, consistent and economic solutions.

- The IT Task Force developed a proposal to form a multi-jurisdictional (state, counties, cities) "Information Technology Collaborative Forum." The Forum is projected as a medium through which the jurisdictions can champion technology use among Iowa's transportation jurisdictions by identifying and facilitating opportunities in information technology development, education, deployment and sharing.

The DOT director and city and county associations' transportation groups have all endorsed the Collaborative Forum, and all three jurisdictions identified representatives to serve on it. The first Forum meeting was held May 6, 1997. IT Task Force members attended to provide background and transition information. The Forum intends initially to meet at least quarterly. It is anticipated the Collaborative Forum will lead to enhanced

support for technology adoption by local governments, the development of a statewide transportation communication information network, coordination and joint training, and a general championing of compatible technological advancements (including common standards) in all three jurisdictions.

Recommendation: Deploy current automation technologies more quickly within the Iowa DOT (#3)

The BRTF recommended that the Iowa DOT aggressively deploy off-the-shelf automation technologies such as phone or voice mail, electronic mail, fax-back or fax-on-demand systems, local area networks, and mobile computing and communications devices.

The internal DOT survey was targeted at trying to better understand the viewpoint of DOT employees that led the BRTF to this recommendation. It identified several fundamental issues. The first was that additional automation support staff is needed at DOT. The department is doing several things to address this need:

- One position was reassigned and filled to provide automation support to agency GIS efforts.
- Eleven other positions are in the process of being reassigned to the five automation support teams.
- Six positions have been reassigned to serve as field work unit support (one in each transportation center region).
- Peer support programs, whereby program staff provide basic automation support to each other, are now being actively used.
- The department's FY 1999 budget request includes a request for salary and support for five additional automation support staff, primarily for support of the department's local area network (LAN).
- Increased emphasis is being placed on user training and standardization of some software to aid training and productivity.

The second issue identified was the need for equipment to be replaced with new technology sooner than it currently is. The department has done two primary things to better address this concern:

- Requested and received in its FY 1998 budget a one-time additional infusion of funds to be used to speed up certain automation efforts. The \$1.2M provided during FY 1998 is being used for development of GIS/GPS, ERMS (Electronic Records Management System), the local area network, and an integrated database.

- Deferred replacement of several pieces of large equipment and trucks to make about \$1.5M more available for the department's FY 1998 Information Processing (IP) Plan than is customary with the normal replacement program. This one-time opportunity will help advance technology deployment in the department.

These two actions have resulted in a one-time-only 50 percent increase in the level of investment in the agency's FY 1998 IP Plan over the historical average.

The third issue was inadequate training available to users to enable them to maximize use of equipment. The department effort to increase the number of automation support staff and standardize some software will also have a positive impact on this concern.

Finally, the survey indicated the need to better communicate about and understand the DOT's Information Processing (IP) Plan development, approval and implementation process. The task force referred this issue to the DOT's IP Steering Committee which oversees this internal process. **The IP Steering Committee formed a process improvement team to analyze the IP planning/approval/implementation process and recommend improvements in the process.** That team began work September 3, 1997, and is expected to make recommendations during FY 1998.

Recommendation: Give local governments the opportunity to buy technology through Iowa DOT or DGS contracts (#5)

The BRTF recommended that the Iowa DOT and the Iowa Department of General Services give counties and cities the opportunity to procure office and other simple technologies through the two state agencies' open contracts.

The external survey sought to determine if local jurisdictions knew about purchasing opportunities available through the DOT and what the likelihood was of them taking advantage of the opportunities. The results show that half of the respondents didn't know about the opportunity, and that the majority of those who were aware did not use the opportunity. The Technology Task Force suggested the department look for ways to increase awareness of local jurisdictions about the opportunity.

Toward this goal, the DOT has done the following:

- Developed and put on-line on the Internet in October 1997, a DOT Purchasing Section home page which provides information about the kinds of services available to local jurisdictions through the DOT Purchasing Section. (www.state.ia.us/government/dot/procdist/polsub.htm)

- Developed two brochures (printed September 1997) that provide general information for local jurisdictions about the DOT's Office of Procurement and Distribution.

- Staffed a booth at a multi-jurisdictional winter preparedness conference held in Ames in October 1997 to provide general information to local jurisdictions about the available procurement services.

Recommendation: Maximize the use of the Iowa Communications Network for training and meetings (#7)

The BRTF recommended that, whenever possible, the Iowa DOT and local governments use the Iowa Communications Network (ICN) to hold training sessions and meetings. It was further recommended that the DOT consider installing video-conferencing rooms at its headquarters in Ames and at its six regional transportation centers throughout the state.

The Technology Task Force felt no need to further analyze this recommendation concerning the ICN since the DOT was already actively working on it. **The department obligated funds in FY 1997 to purchase interactive video conferencing equipment and installed it in seven DOT locations.** The locations are one each at the Ames and Des Moines administrative offices, and one each at the five remote Transportation Centers (Atlantic, Mason City, Fairfield, Sioux City and Cedar Rapids). These sites use the ICN to link them together, and to link them to other non-DOT ICN sites. The system became active over the summer of 1997 and DOT began using it for a variety of purposes, including general meetings and training. Utilization levels and purposes are being tracked by the department and use of the system is expected to increase naturally as the system is "debugged" and users become comfortable with it as an option. Increased use of the ICN should lead to increased productivity due to less travel time; increased participation, communication and coordination; and decreased mileage and per diem costs.

Recommendation: Develop a coordinated, statewide GIS/GPS network for transportation (#9)

The BRTF recommended that the Iowa DOT build on the plans it has made and steps it has already taken to take the lead in developing a coordinated geographic information system (GIS) and global positioning system (GPS) network for transportation in Iowa. It was further recommended that this be done cooperatively with counties and cities and with other organizations interested in GIS/GPS.

The DOT's Central Iowa Transportation Center (CITC) purchased GPS equipment in July 1997. Before then the CITC had rented equipment for about \$700 a day when needed. Considering the cost of the unit purchased, \$39,000, that would have equaled only 55 days of rental. In the short time the CITC has had the equipment, it has been in use approximately 50 percent of the work days. CITC staff have used the unit to stake out excess land, and found it useful in finding control points, especially in areas where references are not available or not obvious. Using the GPS Real-Time System has allowed them to save not only the daily rental fees, but also saved approximately 40 percent of their time in the collection of field data.

This time savings has allowed CITC to meet customers' needs in a more timely manner by providing them the time to collect data for preliminary survey, locate an archeological dig site for the Office of Project Planning, and to process excess land for the Property Management Section of the Office of Right of Way. The savings in time has also allowed CITC to begin cross-training employees, rotating field and office personnel so the field personnel can post process field data and eventually draw acquisition plats, and the office personnel can learn to use the GPS system so they can, as work load allows, use their people where needed. With other transportation centers getting their equipment and training in November of this year, they should also begin to realize savings of time.

It should be noted these operations are not directly related to GIS activity, but are an Office of Design process.

Recommendation: Encourage the development of regional databases for transportation programming (#11)

The BRTF recommended the Iowa DOT help the regional planning affiliations (RPAs) develop and use a set of simplified management systems to help guide programming at the regional and local level.

• The Technology Task Force believes the **Information Technology Collaborative Forum** (see page 13) will

be an avenue for providing consistent, coordinated consideration of these efforts, as well as for developing a coordinated, statewide GIS/GPS network for transportation.

- Current research projects funded through the Iowa Highway Research Board are addressing portions of the recommendations. **Several GIS-related applications are under development with assistance from the Center for Transportation Education and Research at Iowa State University**, such as for traffic crash locations. Pilot projects have involved cooperation with regional planning agencies and several local governments.

- An automated process to support regional transportation programming for RPAs, along with cities and counties, is being developed under a separate Iowa Highway Research Board contract. This automated process will reduce errors, shorten response time, and speed programming decisions and projects.

The DOT has also been working with the U.S. Geodetic Survey since 1996 to establish the ground control reference system needed to allow GPS technology to be used for many additional purposes.

Recommendation: Investigate possible funding sources for technology investments (#13)

The BRTF recommended that the DOT investigate possible funding sources for technology investments and identified about \$4 million in needed annual investments.

Additional funding sources for technology were achieved. DOT's FY 1998 appropriation included \$1.2 million for additional technology investment, and a further \$1.5 million was reallocated within the DOT for the same purpose.

Recommendation: Re-engineer Iowa DOT's management information systems (#6)

The BRTF recommended that an independent assessment be made of the efficiency and quality of service provided by the Iowa DOT's centralized data processing center. It was also recommended that the assessment be done in conjunction with an assessment of the other two State of Iowa data centers at the Department of General Services and the Iowa Department of Employment Services.

As the home to one of the three mainframe data centers currently serving the executive branch of state government, the DOT has been participating in the executive branch's enterprise-wide analysis of how best to administer and support automation. This analysis resulted in the creation, effective July 1, 1997, of a centralized In-

formation Technology Services section housed within the Department of General Services that is now charged with central administration of the three mainframe data centers. **Analysis is now occurring about whether physical consolidation of the three mainframes into one or two locations is beneficial to the state. The DOT is waiting until the enterprise-wide analysis is completed before it further considers any major change in its overall management information system.**

However, the DOT is involved in other administrative efforts expected to positively impact DOT employees' ability to access and use data and information in meaningful ways. One is to get all offices connected to the DOT's local area network (LAN). The second is the implementation of an electronic record management system. The department is mid-stream in both efforts, and hopes to make major strides in both over the next two years. Coupling these two system-wide efforts with aggressive work on enhancing and integrating various databases, and work on applications such as the maintenance management system, the construction administration system and the equipment management system, the DOT is actively working to maximize use of its automation hardware, software and databases.

C. Legislation

The legislative goals of the BRTF have been almost all achieved, adding \$8 million per year to funds available for road construction and maintenance.

Recommendation: Re-evaluate off-the-top diversions from the Road Use Tax Fund (#29)

The BRTF recommended the governor and legislature re-evaluate diversions and consider moving them to the General Fund.

The following **off-the-top diversions from the Road Use Tax Fund (RUTF) were removed in the last two years:**

- \$1 million per year for recreational trails moved from RUTF to the General Fund, 1996 legislative session.
- \$3.65 million per year for the expenses of the value-added agricultural products and processes financial assistance fund moved to the General Fund, 1997 session (effective July 1, 2000).
- \$350,000 per year for the renewable fuels and coproducts fund moved to the General Fund, 1997 session (effective July 1, 2000).

Recommendation: Credit overweight truck and truck safety fines to the Road Use Tax Fund (#30)

The BRTF recommended that fines for overweight trucks and truck safety violations be credited to the RUTF rather than the General Fund.

Pursuant to action taken during the 1996 session, **truck fines are now being credited to the RUTF**, adding about \$3 million each year.

Recommendation: Fund Iowa DOT building projects out of the infrastructure fund (#37)

The BRTF recommended that DOT building projects be funded from the state's new infrastructure fund dedicated to investing in Iowa's deteriorated vertical and horizontal infrastructure.

The DOT has not taken a position on this recommendation, choosing instead to defer to legislative decision-making on the use of these funds.

D. Outsourcing

Recommendation: Outsourcing fleet management (#22,23,24,25,26)

The BRTF issued five recommendations regarding assessment of fleet leasing, outsourcing fleet maintenance, and other outsourcing opportunities.

By the time the Outsourcing Task Force first met in May 1996, **the DOT had already met with representatives from the Iowa Department of General Services and the Regents institutions, along with the Iowa Department of Management, about pursuing an enterprise-wide fleet assessment.** All affected entities had agreed to the concept and were in the process of developing a Request for Proposal (RFP) to engage a consultant to perform the assessment. Because of this, the Outsourcing Task Force's role became one of advising the department in the RFP development process, the consultant selection, and review of the consultant's report. The committee also recognized that the hiring of a consultant to assess the fleet addressed five of the recommendations.

The interagency committee finalized and issued an RFP for a consultant on July 19, 1996. The RFP established four areas for consultant attention:

1. Acquisition strategies, ownership and financing
2. General fleet management issues

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3. Fleet maintenance
4. Opportunities for shared services and economies among the various executive branch fleets

Three proposals were received by the August 14, 1996, due date. The interagency committee served as the selection committee and David M. Griffith and Associates (DMG) was selected. An agreement between DMG and the Iowa DOT, on behalf of itself, DGS and the Iowa Board of Regents institutions, was entered into effective October 1, 1996. The contract, following a couple of time extensions, was in force through October 31, 1997.

The consultant began work October 1, 1996, on performing individual assessments of the five major fleets plus two smaller special schools' fleets. In addition to the individual assessment, the consultant prepared a cross fleet assessment for the executive branch as a whole. Of particular interest to the BRTF Outsourcing Task Force was the separate DOT assessment.

DMG met with a wide array of DOT employees, including central complex equipment support staff, field mechanics, fleet customers—both in the field and central office, and other central support staff that provide support services to the agency's fleet management effort. In addition, the consultant met with the BRTF Outsourcing Task Force at its November 20, 1996, meeting for the purpose of receiving direct input from the task force in the actual assessment.

DMG's final report was received at DOT recently. The report found that "the current organization and structure for providing fleet services is fundamentally sound." Therefore, DMG did not recommend wholesale changes in the way the fleet is acquired and financed, managed or maintained. However, DMG did make recommendations for enhancing the current fleet management system. DOT is now analyzing the final report and will then make decisions on next steps.

Recommendation: Investigate other promising outsourcing opportunities (#27)

The BRTF recommended that the Iowa DOT explore additional functions for outsourcing potential and to see if additional savings to RUTF could be generated.

The recommendation to investigate other promising outsourcing opportunities was **determined to be one around which the task force need not take any further action.** The DOT already was involved in a managed competition effort related to two of its activities—sign manufacture and paint striping—and would be analyzing that effort to determine future outsourcing activity. It was also recognized the department already outsources many activities.

Recommendation: Do not outsource core business functions of the Iowa DOT (#28)

The BRTF recommended that core business functions of the Iowa DOT and local transportation agencies not be considered for outsourcing.

This recommendation did not require any analysis or action.

E. Planning

Recommendation: Employ "Super Two" design standards where appropriate (#33)

The BRTF recommended the Iowa DOT make greater use of "Super Two" design standards on the Commercial and Industrial Network/National Highway System.

"Super Two" is defined as a two-lane distinct class of roadway with improved traffic operational features. "Super Twos" are intended as high level permanent two-lane facilities. The benefits to Iowans of incorporating "Super Twos" include: less right-of-way than four-lane highways; lower construction costs than four-lane highways (usually 1/2 to 2/3 of the costs); lower accident rate than standard two-lane highways; and reduced travel time/vehicle operating costs over standard two-lane highways.

• **Specific design standards for the "Super Two" are being currently developed as part of the Highway System Plan.** Possible "Super Two" design features include:

- minimum 12-foot lanes
- 10-foot paved shoulders
- limited access
- climbing and/or passing lanes
- left- and right-turn lanes
- acceleration lanes
- higher posted speed limit

• **The adopted State Transportation Plan includes investment strategies which deal with "Super Two" development:**

- The Commercial and Industrial Network will be developed to a minimum standard of "Super Two" design.

- Capacity improvements on the remaining primary highway system include additional lanes or "Super Two" designs, generally on commuting routes near large urban areas.

Recommendation: Program preventive maintenance (#35)

The BRTF recommended the Iowa DOT and regional planning affiliations begin to work toward programming preventative maintenance expenditures the same way construction expenditures are programmed.

- The State Transportation Plan (which was officially adopted by the Transportation Commission on July 15, 1997) consists of three major investment actions concerning primary highways in Iowa. These actions are:

- Invest in maintaining, preserving and rebuilding the interstate highway and bridge system.
- Invest in maintaining, preserving and rebuilding the Commercial and Industrial Network highway and bridge system.
- Invest in maintaining, preserving and rebuilding the remaining primary highway system.

• The programming of preventive maintenance, which includes timely resurfacing and rehabilitation (better known as preservation) projects, has been used in the past and will continue to be a priority in the future. The State Transportation Plan highway investment actions focus significantly on preventative maintenance activities. The interstate system is top priority, followed by the Commercial and Industrial Network and the other primary highways. The rural average daily traffic and mileage for these levels include:

	Vehicles	Miles/day
Interstate system	17,400	635
Commercial/Industrial Network	4,550	2,021
area development	2,650	2,531
access routes	1,750	2,796
local service	1,300	821

The 25-year State Transportation Plan, Iowa in Motion, indicates that 20 to 30 percent of the entire 25-year highway construction expenditures are directed towards preservation projects. The basis for these decisions is the department's use of a pavement management system, bridge management system, congestion management system and safety management system, plus input from the transportation centers, that provide uniform and use-

ful information for planning and programming of these types of projects. The purpose of these management systems is to improve the efficiency of and protect the investment in existing and future highway infrastructure i.e., the timely programming of projects to get the most life out of the asset.

Recommendation: Review and revise the Quadrennial Needs Study (#36)

The BRTF recommended the Quadrennial Needs Study, prepared by the Iowa DOT in conjunction with the cities and counties, be reviewed as far as its purpose and methodology.

- The DOT is currently involved in developing the 1998-2017 Quadrennial Needs Study which will be completed and submitted to the state legislature in January 1999. The Quadrennial Needs Study assesses the current needs of the system and is used as a basis for allocating the county share of RUTF monies among the counties. The Iowa County Engineers' Association is involved throughout the entire needs study process, resulting in a cooperative effort. **The Iowa County Engineers' Association is currently looking into the possibility of using its pavement management data as input into future needs studies.**

• The Public Policy Center at the University of Iowa has completed a study proposed by the Iowa County Engineers' Association which addresses the distribution of state road use tax funds to counties. The purpose of the study was to design an allocation approach that is stable, comprehensive, predictable and sensitive to the diverse nature of all counties. The study resulted in a recommended county allocation formula containing the following six factors:

- lineal feet of culverts and bridges
- number of culverts and bridges
- secondary road mileage
- vehicle miles of travel on secondary roads
- terrain index
- maximum property tax potential for secondary road financing

• The Engineering Research Institute at Iowa State University completed a study in December 1993 which was designed to answer questions posed by members of the Iowa County Engineers' Association concerning the sensitivity of the key variables used in developing the Quadrennial Needs Study. Recommendations were identified for improvements in the pro-

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cess of data collection in the areas of road and structure condition rating, traffic, and in the assignment of construction cost areas.

Both of these studies have been submitted to the Iowa County Engineers' Association—with no formal action taken.

Recommendation: Study alternatives for system responsibility (#38)

The BRTF had recommended that a study of system responsibility be performed to look at the cost savings that might be realized by changing responsibility for highway maintenance.

- The recently adopted State Transportation Plan does not address system size or responsibilities. However, the department has identified routes eligible for transfer and, as appropriate, works toward transfers with cities and counties when mutual agreement can be reached.

- The department has implemented an urban primary highway service policy whereby urban areas over 20,000 population are evaluated as to what is the appropriate level of primary highway system service.

E. Sharing

Recommendation: Consolidate DOT maintenance garages (#31)

The BRTF suggested that a good way to reduce redundant facilities would be through sharing these major investments by cities, counties, and the Iowa DOT.

The department is implementing this recommendation through five garage sharing projects. These projects are discussed in more detail below under Recommendation # 17: Develop pilot sharing projects.

Recommendation: Form a transportation sharing committee (#16)

The BRTF recommended that the governor form a transportation sharing committee to oversee transportation pilot projects, document existing arrangements, and develop an education program for state and local officials.

A Sharing Task Force was formed to focus on the BRTF recommendations related to intergovernmental sharing of resources. Sharing seeks maximum efficiencies among governmental entities through several means, e.g. several jurisdictions using a single specialized piece of equipment rather than each jurisdiction needing to own one.

Multijurisdictional representation was particularly important for this task force. The group included county and city engineers, a city manager and DOT personnel. AFSCME was also represented because of labor concerns that sharing could be used to reduce employment. One of the task force's early decisions was to assume the responsibilities of the recommended transportation sharing committee.

Recommendation: Develop pilot sharing projects (#17)

The BRTF recommended that the transportation Sharing Task Force initiate four demonstration projects each year involving local government and, potentially, the Iowa DOT. The goal of the projects would be to demonstrate a workable sharing arrangement or joint administration that could be replicated across Iowa.

In response to the recommendation, the Sharing Task Force concentrated on two kinds of pilot projects: garage sharing and county-wide sharing.

Garage Sharing

In a shared garage, DOT and city/county transportation units share in the engineering, construction and administration of a garage facility, lowering costs for all partners. Rather than each entity building its own garage, a shared facility minimizes costs by providing each entity with the independent space it needs while sharing common facilities such as break and training rooms, restrooms, bulk salt and sand storage, parking areas, etc. The shared facility also facilitates and encourages joint purchases of bulk commodities, joint fueling, and equipment parts.

The DOT selected two sites for the pilot garage sharing projects. These sites were selected because the DOT had aging garages needing replacement, and the DOT had potential funding for its share of the facility. **The two sites that met the DOT's criteria were Anamosa and Charles City.**

In Anamosa the DOT and the city will be the primary partners, with Jones County assuming a secondary role. The county has a new facility across the road from the proposed shared facility site, which may enable all the partners to share fueling and salt/sand storage and purchasing. The Institute for Public Administration (IPA) has drafted a sharing agreement that meets the requirements of the parties. One source of savings for DOT in this project is that the land already belongs to the city; DOT therefore does not need to spend an estimated \$100,000 to acquire land for the building.

The Charles City pilot project would include the DOT, the city and Floyd County. The DOT is currently looking for land to purchase, and a site has been selected that

meets the requirements of all three entities. Current discussions include Charles City and the DOT sharing the garage, while Floyd County will share in some of the adjacent facilities, such as the salt dome.

Garage sharing initiatives are also proceeding in Sheldon, Rockwell City and southeast Polk County in addition to the two pilot sites in Anamosa and Charles City.

Several issues have emerged and have been presented to the Sharing Task Force for further discussion:

- Could a revolving fund be established by the DOT for shared facilities?
- Could a lease/purchase agreement be arranged?
- Could other construction types be considered for shared facilities?
- Could special legislation be sought for groups that are willing to share facilities, legislation that would make it easier for local governments to raise the funds needed for their share?

These are common issues that have emerged around the state from other groups who are exploring shared facilities, such as jails. Even when cost savings can be demonstrated and the concept of sharing makes sense to all partners involved, barriers often remain. Barriers focus on financing, administration, organizational structure, allocation of costs, and "turf" concerns.

Another positive outcome from these two projects has been the availability of a third party facilitator to assist in the negotiation on shared facilities. IPA has been able to keep negotiations open between the various governmental entities, which has been an invaluable resource. As these projects proceed, they will provide a road map for others who want to share in capital projects.

County-wide Sharing

Two other pilot sharing projects are taking place in Dubuque and Marshall counties. The Iowa Department of Economic Development (IDED) selected these two counties to explore broader sharing potential between the DOT and local governments. The criteria used by IDED to select the sites were the presence of organizational structure that had already collaborated in other government services, the availability of staff to devote to sharing projects, and local leadership willing to commit time.

In these efforts, all the transportation entities in the county are invited to participate in a county-wide sharing experiment. The three-part methodology calls for the group to list assets, list needs, and then try to match assets

with needs. For example, the county road department may have motor graders while the state garage has a need for a motor grader. A sharing arrangement can then be negotiated. Or, several entities may discover a common need through this process and jointly pursue a solution in a more efficient and effective way than they could have individually.

The Dubuque County project has been highly successful. Many sharing opportunities have been identified and are being pursued. A partial listing follows:

- 28E and other agreements for street and highway maintenance
- snow removal trade-off agreements
- street painting and striping

Many additional sharing opportunities have been identified and are being pursued. A partial listing of these include:

- joint purchasing
- coordinated pre-wetting or pre-treatment program for snow removal
- joint salt storage and joint fuel system
- traffic signs inventory/upgrading program with joint application by five cities
- shared street sweeper
- OSHA training
- street painting and striping
- shared sample specifications and bidding information
- leasing equipment from DOT
- a GIS project
- potential for a joint maintenance facility

The Marshall County effort is also proceeding. Since the implementation of these projects began, there has been another group express interest in pursuing service sharing arrangements in Adair County. They have identified projects including: road equipment and vehicle servicing; road and street maintenance; bulk purchasing of office and vehicle supplies; road construction; garage facilities; and equipment sharing. This grassroots group has been meeting for the past year. DOT personnel were included because of information shared about the Dubuque County transportation sharing group.

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The BRTF suggested that professional assistance be provided to support sharing initiatives.

Recommendation: Provide technical assistance for sharing (#19)

Both the garage sharing and county-wide sharing projects are supported by technical assistance from the Institute for Public Administration (IPA) at the University of Iowa and the Iowa Department of Economic Development. Funding for the IPA's participation was secured through the Cooperative Highway Research Fund. IDED also contributed \$14,000 per pilot project for local staff support who could coordinate the activities among the various governmental entities.

Recommendation: Share real-time weather information through joint contracting (#10)

The BRTF recommended the DOT negotiate contracts with private vendors and otherwise make real-time weather information available to counties and cities in Iowa on a cost reimbursement basis.

In partnership with the DOT's private sector partners in this area (Data Transmission Network Corp. and Surface Systems, Inc.), pilot provision of this service was made available in three counties and two cities during the winter of 1995-96. Building on that experience, **real time weather radar, forecasts, and pavement condition information** were made available to cities, counties and other interested entities such as hospitals and schools during the 1996-97 season for less than \$100 per month.

Continued follow-up revealed a need for training. County and local transportation supervisors and crews needed to know more about how to use the weather information to improve service and manage costs. **In response, DOT and local officials jointly sponsored a winter maintenance exposition at the Iowa State University campus on October 8-9, 1997.** Given that this effort was a first attempt, planners expected about 1,000 participants. Close to 1,200 attended. This interest and the resulting information shared will increase both the use and effectiveness of real-time weather information for winter maintenance activities.

Real-time weather information saves the DOT and local jurisdictions in overtime and vehicle and materials expense during snow and ice operations while also increasing effectiveness.

Recommendation: Promote the leasing of Iowa DOT equipment by local governments (#20)

It was recommended the Iowa DOT provide better information to local governments as to the availability of equipment for lease.

The Sharing Task Force simplified and streamlined the leasing procedures and paperwork to facilitate local jurisdictions leasing DOT equipment. Such leasing could lower local jurisdiction transportation costs and, in general, encourage more sharing between state and local transportation entities.

Recommendation: Modify or remove Section 28E.20 from the Iowa Code to promote intergovernmental equipment purchases (#21)

The BRTF had recommended that Section 28E.20 be modified or removed from the Iowa Code.

Iowa Code Section 28E.20 was repealed during the legislature's 1996 session. This section, which required political subdivisions to document equipment purchases greater than \$50,000 through official meetings before the fact, was seen by the BRTF as unneeded additional cost and effort.

Recommendation: Encourage the development of voluntary transportation districts (#18)

The BRTF recommended that the transportation Sharing Task Force be charged with writing a plan, or blueprint, for local and state transportation agencies to voluntarily partner together in the development of transportation districts under Iowa Code Chapter 28E.

The Sharing Task Force deliberated the merits of the BRTF recommendation and concluded that pressing forward with this idea would be premature at this time. More successful sharing experiences will lay the needed foundation for the buy-in which will be needed to implement voluntary transportation districts. **This idea should be revisited when sharing is more mature and more broadly established among Iowa transportation entities.**

IV. Conclusion

As documented in this report, Blue Ribbon Transportation Task Force implementation has improved the efficiency and effectiveness of the Iowa Department of Transportation. Benefits include dollar savings, less paperwork, faster turnaround times, resources freed for other tasks, and better communication and coordination. The benefits accrued not only to the DOT and its stakeholders, but also to Iowa counties, cities and contractors. Implementation will continue to provide Iowans with the maximum benefit from each tax dollar spent on Iowa roads.

APPENDIX A

Implementation Task Force

Membership

BLUE RIBBON TRANSPORTATION TASK FORCE

Implementation Task Force Membership

Information Technologies Task Force

Co-Chairs:

Nancy Richardson, Director,
Operations and Finance Division
Ian MacGillivray, Director, Engineering Division

Members:

John Nimmo, Director, Office of Data Services
Roger Bierbaum, Director, Office of Contracts
Mike Winfrey, Director, Office of Motor Vehicle Enforcement
Mike Jackson, Transportation Center Maintenance
Engineer, Southwest Iowa Transportation Center, Atlantic
Steve DeVries, County Engineer, Mills County
David Paulson, County Engineer, Carroll County
Larry Stevens, Public Works Director, Oskaloosa

BRTF Liaison:

Mike Blouin, BRTF Technology Subcommittee Chair

Intergovernmental Sharing Task Force

Chair:

Neil Volmer, Director, Maintenance Division

Members:

Will Zitterich, Director, Office of Maintenance Services
Tom Donahey, Director, Office of Maintenance Programs
Kevin Mahoney, Transportation Center Maintenance
Engineer, East Central Iowa Transportation Center,
Cedar Rapids
Jim DeLozier, County Engineer, Taylor County
Mark Jobgen, County Engineer, Dubuque County
Gerald Clausen, City Manager, Carroll
Mary Steil, City Administrator, West Bend
David Brisbois, AFSCME District 2 Vice President, Persia
Roger Anderberg, Director, Office of Local Systems
Lawrence Bryant, Field Services Coordinator, East Central
Iowa Transportation Center, Cedar Rapids

BRTF Liaison:

Tim Moerman, BRTF Sharing Subcommittee Chair and
Assistant City Manager, Dubuque

Staff:

Carol Gerleman, Secretary

Outsourcing Task Force

Co-Chairs:

Nancy Richardson, Director,
Operations and Finance Division
Neil Volmer, Director, Maintenance Division

Members:

Kevon Jones, Acting Director, Office of Equipment Support
Carol Coates, Director, Office of Procurement
and Distribution
Tom Donahey, Director, Office of Maintenance Programs
Tim O'Brien, Transportation Center Mechanic,
Northeast Iowa Transportation Center, Mason City
Ed McDermott, Highway Maintenance Supervisor,
Maquoketa garage
Tom Hockensmith, AFSCME District 3 Vice President,
Des Moines
Dwayne McAninch, McAninch Corp. and member of the
BRTF, Des Moines

BRTF Liaison:

Jim Kersten, BRTF Outsourcing Subcommittee Chair

Contracting Task Force

Chair:

Tom Cackler, Director, Project Development Division

Members:

John Smythe, Director, Office of Construction
Champ Narotam, Director, Office of Materials
Vicki Dumdei, Assistant Contracts Engineer,
Office of Contracts
Tom Reis, Specifications Engineer, Office of
Development Support
Don East, Director, Office of Design
Tom Sally, Director, Office of Development Support
Larry Jesse, Assistant Director, Office of Local Systems
Tom Stoner, County Engineer, Harrison County
Jerry Weber, County Engineer, Clayton County
Paul Wiegand, Public Works Director, Ames
Robert M. Reilly, President, Reilly Construction Co., Inc.,
Ossian
Ken Shafer, Data Processing Manager,
Project Development Division Support Team
Jim Brendeland, Data Processing Manager,
Operations and Finance Division Support Team

The Contracting Task Force further divided and formed two major working groups, which engaged more members, as follows:

Project Administration Working Group

Co-Chairs:

Champak Narotam, Director, Office of Materials
Jerry Weber, County Engineer, Clayton County

Members:

John Smythe, Director, Office of Construction
Vicki Dumdei, Assistant Contracts Engineer,
Office of Contracts
Mike Heitzman, Program Engineer, Federal Highway
Administration, Ames
Charles Covell, Reilly Construction Company, Ossian
Gary Veeder, Allied Construction Company
Dale Harrington, Snyder & Associates, Ankeny

Program Administration Working Group

Co-Chairs:

Tom Stoner, County Engineer, Harrison County
Larry Jesse, Assistant Director, Office of Local Systems

Members:

Paul Wiegand, Public Works Director, Ames
Doug Elliott, Executive Director, East Central Iowa
Council of Governments
Jerry Solbeck, Director, Office of Program Management
Roger Bierbaum, Director, Office of Contracts
Mike Heitzman, Program Engineer, Federal Highway
Administration, Ames

Planning and Programming Task Force

Chair:

Dennis Tice, Director, Planning and Programming Division

Members: (The Executive Committee of the Iowa in Motion
Advisory Committee served in this capacity).

Craig Finch, Iowa Motor Truck Association, Des Moines
Jim Meyer, Hy-Vee Food Stores, Inc., Des Moines
Fred Yocum, Iowa Interstate Railroad
George F. Davison, Jr., Iowa Association of Railroad
Passengers
David Forkenbrock, Public Policy Center, University of Iowa
Steve Lacina, Association of County Supervisors
Maria Pearson, Government Liaison for Indian Affairs,
Ames

Legislation Task Force

Chair:

Darrel Rensink, Director, DOT

Members:

Les Holland, Deputy Director
Mary Christy, Director, Director's Staff Division
Nancy Richardson, Director,
Operations and Finance Division
Michael Audino, Director, Field Services Division

APPENDIX B

Scorecard

Blue Ribbon Task Force Recommendations:
PROGRESS AND STATUS
December 8, 1997

Shaded areas represent current status.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
1. Establish technology champion	Information Technologies				Multijuris- dictional collaboration forum held its independent organizational meeting in July, 1997, adopting bylaws and goals. The group will focus on using technology to improve government efficiency through sharing. Private sector organiza- tions may also want to participate.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
2. Streamline and automate paperwork processes	Contracting	Priorities identified by two working groups: (1) project administration, and (2) program administration. Work also underway in the Proj. Dev. Division in conjunction with Construction Management System and AASHTO. Ops. & Fin. Division developing a new document management strategy.		See Appendix for implementation status of the numerous individual initiatives under this recommendation.	See Appendix for initiatives accomplished under this recommendation. Some work ongoing.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
3. Deploy automated technologies	Information Technologies	Survey of DOT information technology users revealed the following two main needs: 1. more technical support staff (hardware and software). and 2. more staff training. The task force has referred the survey results to the DOT Information Processing Steering Committee for action.		Information Processing (IP) Steering Committee formed a process improvement team and identified a facilitator. Using survey results this group is now working. They will recommend improvements to the IP plan development process. Several steps have already been taken to address the needs identified in the survey. e.g. reassigning positions to technical support. A one time infusion of \$2.7 million in FY '98 is also currently advancing technology deployment at DOT.	

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
4. Facilitate local government adoption of technology	Information Technologies				Input from city/county IT survey and other IT task force ideas are being provided to the forum referenced in Recommendation #1 above. The forum will work collaboratively to facilitate local government adoption of technology.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
5. Help local government purchase technology via state contracts	Information Technologies				Purchasing technology via state contracts in place. DOT has put purchasing information on-line, developed and distributed two brochures, and staffed a conference booth, all highlighting opportunities and procedures for purchasing via state contracts.
6. Re-engineer MIS	Information Technologies	Deferred until state mainframe consolidation analysis reaches conclusion.		DOT connecting all offices to the DOT's LAN. DOT implementing electronic record management system.	

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
7. Promote use of ICN in training & meetings	Information Technologies				Equipment for seven sites (Ames, Des Moines, Mason City, Sioux City, Atlantic, Fairfield, and Cedar Rapids) received and installed. Final communication links and training are now being provided. All sites now operational. DOT tracking utilization levels. DOT also uses the ICN for large volumes of voice and data communica- tions.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
8. Purchasing and highway contractor information on-line	Contracting (with Information Technologies)	Working group continues to pursue electronic and on-line bid submittals (software development in conjunction with five other states). Should be in place sometime in 1998. Legislature will be asked to address issues associated with electronic bid submittals and signatures in the 1998 session.		Bidding and other information now on-line via COMPUSERVE and the CTRE bulletin board. Long-range migration to Internet being considered. CD-ROM provision of bid specifications in process; to economically do a CD-ROM for each letting, a 100% electronic plan is needed. Design and Bridges/Structures still working on electronic plans. Current processes also speeded up by 50% of contract line items now being submitted electronically (via diskettes).	

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
9. Develop GIS/GPS network	Information Technologies			<p>Work underway in conjunction with Iowa Geographic Information Council (IGIC). Efforts focus on standardizing geographic references and sharing data bases and other information. Example: DOT planning process incorporates geographic data such as leaking storage tanks and environmentally sensitive areas. GPS equipment received in July, 1997. Position reassigned and filled to support GIS implementation. IGIC will be requested to conduct more outreach and education</p>	

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
				with local jurisdictions. DOT Office of Local Systems will facilitate distribution of materials for this purpose.	
10. Share real-time weather information	Sharing	Pilot project completed with Data Transmission Network Corp., Surface Systems, Inc. in 3 counties and 2 cities. Cities and counties provided positive feedback and input to public-private partnership proposals.		Public-private partnership agreement between DOT, DTN, and SSI. Real-time weather information, including weather radar, forecast, and pavement temperatures, were available this past winter to cities, counties, and other public entities for less than \$100/month.	Despite the difficulty of the October availability, 26 counties/cities signed up for the full service in 1996. Others participated in a free trial period. About 1,200 participants attended a joint county/city/DOT exposition and training for the technology which was held on Oct. 7-9, 1997. Usage of the service should increase this winter as a result.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
11. Develop regional databases for programming	Information Technologies			DOT is cooperating in a county-led initiative to develop project monitoring software which will enable all major participants in highway programming to track and update progress electronically on a single system. This system would speed programming and construction and reduce errors.	

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
12. Create state highway information communications network	Information Technologies				Input from county/city IT survey and other IT task force ideas are being provided to the forum referenced in Recommendation #1 above. It appears that an Internet-based network solution is most likely. The forum will work collaboratively to achieve a better communication network between city, county, and state transportation units.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
13. Investigate funding sources for technology investments	Information Technologies			DOT technology investments from various sources are continually explored, including the Governor's technology initiatives and DOT operational funds. DOT will also continue to collaboratively (with local jurisdictions) pursue federal funding opportunities.	The 1997 Legislature included \$1.2 million in DOT's FY 1998 appropriations bill (S.F. 391) for "technology improvement projects consistent with the recommendations of the Blue Ribbon Task Force." Signed by Governor Branstad on May 19, 1997. DOT also reallocated \$1.5 million internally for this purpose.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
14. Exempt contractor materials from sales/use tax	Contracting	DOT developing prototype formula. Department of Revenue & Finance has developed initial draft of required legislative changes. Anticipate legislative proposal in 1997 session.		Agreement between DOT, Dept. of Revenue & Finance, and contractors for a formula to estimate sales/use tax payments. Formula would eliminate current paperwork and delays for contractors and DOT. DOT continues to develop the materials cost data base.	"Formula" plan adopted by 1997 Legislature and signed into law by Governor Branstad on May 1, 1997. Effective July 1, 1997
15. Develop common standards for specifications and equipment	Sharing and Contracting			Working group surveyed Iowa municipalities, all state DOTs, contractors, and consultants. Initial review of responses appears to be positive. Working group pursuing.	
16. Form transportation sharing committee	Sharing				Sharing Task Force will serve as the transportation sharing committee.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
17. Develop pilot sharing projects	Sharing	Pilot sharing projects will be implemented through a partnership between the DOT, IDED, and the U of I's Institute for Public Administration (IPA). Funding for IPA's participation secured through the Cooperative Highway Research Fund. MOU drafted to clarify tasks, responsibilities, and outputs.		Four pilot sharing projects underway: two garage sharing projects (Anamosa and Charles City) and two general county projects (Dubuque and Marshall counties). In Anamosa, the DOT and the city will be the primary partners with the county in a secondary role. The county has a relatively new facility across the road from the proposed shared facility site. Participants are pleased with progress to date.	
18. Encourage development of voluntary transportation districts	Sharing		Defer for now. Consider again when sharing initiatives are more mature and sharing is more broadly established.		

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
19. Provide technical assistance for sharing	Sharing			Pursuing in conjunction with #17, above. Technical assistance provided by Institute for Public Administration of the U of I and IDED.	
20. Promote leasing of Iowa DOT equipment by local governments	Sharing	DOT team working to simplify and streamline leasing procedures and paperwork. This first step should lower barriers and create conditions under which such leasing can more easily occur.			A simplified lease agreement and procedures have been adopted and implemented.
21. Modify/repeal 28E.20 of the Iowa Code	Sharing				Passed by Legislature 5/1/96. Signed into law by Governor Branstad 5/20/96.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
22. Assess leasing of light and medium duty fleet	Outsourcing	Work in conjunction with effort of interagency team (DOT, DGS, DOM, and Regents). David M. Griffith & Associates (DMG) independent assessment of fleet ownership, management, and maintenance operations now completed. Final report received. (See Recommendation # 26.)	DOT analyzing DMG recommendations. Recommendations to the Director will follow.		
23. Assess leasing of heavy duty fleet	Outsourcing	Work in conjunction with effort of interagency team (DOT, DGS, DOM, and Regents). David M. Griffith & Associates (DMG) independent assessment of fleet ownership, management, and maintenance operations now completed. Final report received. (See Recommendation # 26.)	DOT analyzing DMG recommendations. Recommendations to the Director will follow.		

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
24. Assess outsourcing vehicle maintenance	Outsourcing	Work in conjunction with effort of interagency team (DOT, DGS, DOM, and Regents). David M. Griffith & Associates (DMG) independent assessment of fleet ownership, management, and maintenance operations now completed. Final report received (See Recommendation # 26.)	DOT analyzing DMG recommendations. Recommendations to the Director will follow.		
25. Inform local agencies about outsourcing	Outsourcing	Defer pending outcome of current outsourcing and competition initiatives.			

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
26. Conduct outside assessment before outsourcing	Outsourcing				Work in conjunction with effort of interagency team (DOT, DGS, DOM, and Regents). David M. Griffith & Associates (DMG) independent assessment of fleet ownership, management, and maintenance operations now completed. Final report received. (See Recommendation #26.)

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
27. Investigate other outsourcing opportunities	Outsourcing				Many activities currently outsourced and others under active consideration. Two "competition" pilot projects completed at DOT: Sign Shop and paint striping. Bids for paint striping received Dec. 4, 1996; bids for signs and graphics received Dec. 18. Continued assessment will take place under the "Operationalizing Quality Government" model.
28. Do not outsource core Iowa DOT functions	Outsourcing				Core competencies and policy functions will not be outsourced.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
29. Reevaluate off-the-top diversions from the RUTF	Legislation				<p>\$1 million/year for trails moved from RUTF to General Fund in the 1996 Legislature. Signed into law by Governor Branstad. Pursuant to legislation passed in the 1997 session and to take effect July 1, 2000, the expenses of the value-added agricultural products and processes financial assistance fund (\$3,650,000/yr.) and the renewable fuels and coproducts fund (\$350,000/yr.) will move to the General Fund.</p>

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
30. Credit truck fines to RUTF	Legislation				Passed by 1996 Legislature 5/1/96. Signed into law by Governor Branstad 5/30/96. Fines issued totaled over \$3 million/yr.
31. Consolidate DOT maintenance garages	Sharing	Director's moratorium on garage consolidations still in place		DOT implementing garage sharing efficiencies. Current "Ventures Partnerships" garage sharing initiatives underway in Anamosa, Southeast Polk, Sheldon, Rockwell City, and Charles City.	No further action by DOT.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
32. Encourage more partnering	Contracting			Expanding partnering to the design phase of selected projects to achieve more and earlier contractor and field construction input to design processes. "Constructability" working group approved working group recommendation at 11/4/96 meeting. Those recommendations have now been formalized as policy in the PPM. Primary candidates for constructability reviews include: major corridors with foreseen difficulties, major bridges, environmentally sensitive projects, and major urban corridors.	Design partnering currently being used in Iowa Great Lakes Area project. Will also be used for Mt. Pleasant 218 bypass and I-235 in Des Moines. Training for participating parties taking place as projects come on line. Partnering is also employed to address site-specific concerns, e.g. Highway 218/Highland School crossings. The public-private partnership for the Top of Iowa rest area/welcome center which will save taxpayers \$3.4 million over 30

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
					years represents another example of innovative partnering at DOT.
33. Employ super- two design	Planning	Currently being used on US 71, US 34, and US 30. Use of super-two design highlighted in Iowa-in- Motion alternatives. Further action pending outcome of Iowa-in- Motion.			The Iowa in Motion 25-year State Transportation Plan provides for the development of the Commercial and Industrial Network (CIN) to a minimum standard of Super-2 Design. Under this Plan, 969 miles on the CIN and 80 miles elsewhere on the primary system would be raised to Super-2 standard.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
34. Adopt thicker pavement design	Contracting				Current practice optimizes economic return of pavement thickness over anticipated 40 year life span.
35. Program preventive maintenance	Planning				Preservation is one of the five major themes of the Iowa in Motion State Transportation Plan: "The highway program will focus on maintenance and preservation." Under this plan, almost 4,500 highway miles will be preserved.

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
36. Review and revise quadrennial needs study	Planning	Forkenbrock/ County Engineers' study completed December 1996.		Forkenbrock/ County Engineers' study produced an alternative formula which was discussed in committee by the 1997 Legislature.	No further action by DOT. Consideration of Forkenbrock/County Engineers alternative formula may take place during 1998 Legislative session.
37. Fund building projects from infrastructure fund	Legislation			Decision not to take a position at this time. Defer to the decision-making process for the infrastructure fund.	No further action by DOT.
38. Study alternatives for system responsibility	Planning			DOT identifies routes eligible for transfer and works with cities and counties toward mutual agreement. An urban primary highway service policy evaluates the appropriate level of service in urban areas over 20,000 population.	

Progress/Status BRTF Recommendation	Task Force Assignment	Analysis & Development	Recommendation to Director	Implementation	Accomplished
39. Continue project phasing policies	Contracting				Director and Contracting Task Force confirm and endorse current practice. 5/15/96. Letting and phasing policies contributed to \$14 million in savings in FY '96.

APPENDIX C

Construction Project Partnering Chart

Iowa Department of Transportation Partnering Project History

Mark R. Bortle

01/30/97

No.	Year	Project Number	County	Contractor	RCE Office
1	1992	IX-58-1(16)--3P-07	Black Hawk	Peterson Contractors, Inc.	New Hampton RCE
2	1992	IR-35-2(240)74--12-77	Polk	Cedar Valley Corporation	Des Moines RCE
3	1992	DE-RP-518-1(10)--33-56	Lee	McCarthy Improvement Company	Mt. Pleasant RCE
4	1992	IM-74-1(96)00--13-82	Scott	McCarthy Improvement Company	Davenport RCE
5	1992	STP-2-2(26)--2C-73	Page	Irving F. Jensen Company	Red Oak RCE
6	1992	DPS-218-8(22)--2E-09	Bremer	Fred Carlson Company	New Hampton RCE
7	1992	IX-218-7(135)--P-07	Black Hawk	Jensen Construction Company	Waterloo RCE
8	1993	BRF-20-9(110)--38-31	Dubuque	Johnson Brothers, Corporation	Manchester RCE
9	1993	IM-80-7(59)247--13-52	Johnson	Fred Carlson Company	Cedar Rapids RCE
10	1993	HES-92-5(27)--2H-91	Warren	Cedar Valley Corporation	Chariton RCE
11	1993	NHS-34-6(48)--19-68	Monroe	Norris Asphalt Paving	Ottumwa RCE
12	1993	IM-35-6(64)166--13-35	Franklin	Fred Carlson Company	Britt RCE
13	1993	IM-80-8(146)278--13-82	Scott	McCarthy Improvement Company	Davenport RCE
14	1993	NHS-71-8(11)--19-21	Clay	W. Hodgeman & Sons, Incorporated	Cherokee RCE
15	1993	BRF-137-1(17)--38-68	Monroe	Shipley Construction Company	Ottumwa RCE
16	1993	HES-28-2(9)--19-77	Polk	M. Peterson Construction	Jefferson RCE
17	1993	HES-30-5(82)--2H-85	Story	Winnebago Constructors	Ames RCE
18	1994	NHS-6-1(78)--19-78	Pottawattamie	Irving F. Jensen Company	Council Bluffs RCE
19	1994	IM-29-3(38)58--13-78	Pottawattamie	Cedar Valley Corporation	Council Bluffs RCE
20	1994	NHS-92-9(54)--19-92	Washington	Shipley Construction Company	Mt. Pleasant RCE
21	1994	NHS-61-5(83)--19-82	Scott	Valley Construction	Davenport RCE
22	1994	NHS-218-7(168)--19-07	Black Hawk	Cedar Valley Corporation	Waterloo RCE
23	1994	NHS-61-6(34)--19-23	Clinton/Jackson	C. J. Moyna & Sons	Davenport RCE
24	1995	BRF-20-9(130)--38-31	Dubuque	Kazanas Industrial Maintenance, Inc.	Manchester RCE
25	1995	NHS-169-7(30)--38-46	Humboldt	Peterson Contractors / Wetherell Excav.	Britt RCE
26	1995	NHS-20-99120--19-31	Dubuque	Fred Carlson Company	Manchester RCE
27	1995	IM-80-5(184)160--13-50	Jasper	Manatt's Incorporated	Ames RCE
28	1995	NHS-3-1(46)--19-75	Plymouth	Brower Construction	Sioux City RCE
29	1995	NHS-141-6(42)--19-25	Dallas	Alta Pacific	Creston RCE
30	1996	NHS-67-1(89)--19-82	Scott	McCarthy Improvement Company	Davenport RCE
31	1996	NHS-67-1(91)--19-82	Scott	Foley Construction / Clinton Engineering	Davenport RCE
32	1996	NHS-61-6(35)--19-23	Clinton/Jackson	Irving F. Jensen Company	Davenport RCE
33	1996	STP-5-4(27)--2C-91	Warren	McAninch Corporation	Des Moines RCE
34	1997	BRF-18-5(96)--38-17	Cerro Gordo	Henkel Construction	Britt RCE
35	1997	BRF-26-1(7)--38-03	Allamakee	Brennan Construction	Decorah RCE
36	1997	NHS-30-5(103)--19-85	Story	Negus-Sweeney Construction	Ames RCE
37	1997				

APPENDIX D

Information Technology Survey

D.O.T. INFORMATION TECHNOLOGIES SURVEY

Prepared by
Dawn Stiemsma, Research Scientist
Vern Ryan, Professor
Lori Merritt, Secretary

In the Fall of 1996, the Department of Transportation's Technology Task Force (of the Blue Ribbon Task Force implementation effort), in cooperation with Iowa State University Extension, conducted a survey of County Engineers, City Clerks and City Representatives across Iowa. The purpose of the survey is to identify what technology offices are currently using and how the state D.O.T. can better assist local governments with implementing information technology.

This report will summarize the results from all individuals who completed the questionnaires. The results provide useful information for the D.O.T. and others as they set priorities and plan for the future.

STUDY METHODOLOGY

Responses were needed from individuals at the county and city level. County Engineers from all 99 Iowa counties were invited to participate. City Representatives are first divided by population size of the community they serve.

Six population categories are used. The number of communities in the first five categories is small, therefore, each community is represented by their City Clerk or Public Works Official, etc.; no sampling was needed.

However, because of the large number of Iowa communities with small populations, a random sample was selected from cities with populations below

1,000. The size of the sample was determined to achieve 90 percent confidence in the results. Assuming a 100 percent response rate, this means that we have 90 percent confidence that responses provided by the individuals participating in the study are valid approximations of responses that would have been given by all representatives, or at least within a range of + or - five percent. A total of 250 office representatives were selected from communities with populations of 999 or less.

Surveys were mailed to individuals. Reminder post cards were sent approximately two weeks later, followed by replacement questionnaires in another two weeks to all respondents who had not returned a survey. The questionnaires were sealed in envelopes and returned to Iowa State University Extension Service for data entry and analysis. Confidentiality was assured by excluding the respondents' names and addresses from the completed questionnaires.

Four hundred and eighty-two of the sampled 624 questionnaires sent out were completed for a response rate of 77 percent. The lowest rate of return comes from representatives of offices in small communities. (For response rate by community size see Appendix A).

PROFILE OF RESPONDENTS

Respondents are asked their title, how many employees work in their office and the population size they serve. Over half of the respondents (55%) are City Clerks. Fourteen percent are County Engineers and another 10 percent are City Administrators. Other titles reported include City Engineer, Public Works Director, and Assistant to the Engineer [FIG. 1].

The number of employees working in the offices range from 0 to 56. The average number of employees in these offices is 4.5. Thirty percent report only one employee in the office. Community populations reported by respondents are similar to Iowa's community demographics with small percentages of individuals serving cities over 50,000 (2%) and a large amount of individuals reporting their office serves populations less than 5,000 (79%) [FIG. 2].

CURRENT USE OF TECHNOLOGIES

A list of ten technologies is listed on the questionnaire. Respondents are asked if they use each of these information technologies and if so, how often. The technologies used the most are personal computers (79%), fax machines (74%), and two-way radios (69%). Technologies such as the Internet and ICN are used by one out of every ten respondents and close to half of the respondents report this technology is NOT available to them [FIG. 3 & 4].

Nine out of ten individuals who use the computer (91%) report they do so daily. Two-way radios are used daily by 96 percent of those that have them and only one-fourth of individuals use voice mail/telephone answering service; however those who have this technology utilize it daily (91%).

A search for underlying themes in response patterns to these technologies is completed using factor analysis. Factor analysis allows examination of the data to look for consistency in the use of certain technologies compared to others. Four factors emerge from these 11 technologies. [For complete listing of Eigenvalues and Correlations see Appendix B]. Sixty-eight percent of the variance among these 11 technologies is explained by the four factors.

The first theme or factor involves a pattern in responses to four items, the use of personal computers, fax machines, cellular phones, and two-way radios. Factor 1 indicates if an office uses a personal computer it is likely they also use the other "basic" technologies listed above. Factor 1 explains one-third of the variance in responses to these items.

The level of use of these "basic" technologies can be crosstabulated with other items such as city population. There is a significant difference in the level of use by the city population the office serves. While 40 percent of respondents from cities of 50,000 or more report high use of basic technologies, only 5 percent from cities of 999 or less report use. There is NOT a significant relationship between county population and level of basic technology use.

A significant relationship exists between type of office (city or county) and their use of basic technologies. Every county office which responded uses some or all of these technologies and sixty-four percent of county offices are high level users of basic technologies. Twenty-four percent of cities report not using these three technologies (PC, fax, and cell phone) and only 17 percent are high level users.

The second factor involves a pattern in the use of three technologies, e-mail, Internet, and access to databases or bulletin boards. These technologies involve using software and being somewhat knowledgeable of the personal computers. This factor explains approximately 14 percent of variance.

When crosstabulated by city population, there is a significant difference in use of these "advanced" technologies. Thirty-eight percent of offices with population of 50,000 or more use all or a combination of Internet, e-mail, and databases compared to just six percent from communities of 999 or less. It is important to note that use of these "advanced" technologies is in some way dependent upon having a personal computer; we would expect the smaller communities without personal computers to have limited use of "advanced" technologies.

Factor three can be thought of as the use of "new wave" technologies. Responses to the use of the ICN and Teleconferencing are related. While there is a significant relationship between population and use of these technologies, no clear pattern emerges.

Barriers

A few questions address possible barriers to using information technologies. First, individuals are asked what limits them. A majority indicate five of the seven items are barriers to using these technologies. Eighty-seven percent indicate cost is a barrier and 64 percent report limited access to the technology is a limiting factor

Second, individuals are asked what is the greatest barrier. Again, cost is the main concern. Cost is reported by 52 percent to be the greatest barrier. A smaller percent report lack of time to learn (13%), not seeing it as useful to their work (10%), or lack of knowledge or experience (9%) as limiting [FIG. 5].

Communication

These office representatives are asked to enumerate the number of times in an average month they communicate with various groups such as contractors, local DOT, and consultants. Responses range from zero to 300 times. Reports indicate they communicate most with contractors and other cities and counties. Fifteen percent of respondents communicate with contractors more than 20 times in an average month. Communication with state and local DOT is the lowest. Thirty-two percent report they do not communicate at all with the state DOT in an average month.

Different modes of communication such as telephone, postal service, and fax are listed on the questionnaire. Respondents are asked what percent of all

interactions with other counties, cities, and the DOT is accomplished using these forms of communications and how they would prefer to communicate.

A majority of current communication between these entities is on the telephone. Four out of every ten respondents report their office conducts 75 percent or more of their interaction on the telephone, another 36 percent do 50 percent of business on the phone.

Internet, e-mail, and two-way radio communication are used very infrequently. Ninety-four percent do not interact using e-mail. However, twelve percent of offices would prefer to do at least half of their communication via e-mail. Although, the percentage of respondents doing 75 percent of their current communication by phone is high (43), the percentage drops to 19 when asked their preference for communicating. The trend from current to preferred communication includes a decrease percentage of telephone use while the percentages for e-mail and fax increase [FIG. 6].

Reports concerning current interactions with contractors show similar numbers for some modes of communication; however, more interaction with contractors is accomplished in person.

COMPUTER INFORMATION

Individuals are asked how many IBM, Macs, etc. the office has available. By combining these answers we can conclude 85 percent of the offices

represented have at least one computer. A significantly higher percentage of counties report they have computers in the office compared to city offices. Ninety-nine percent of counties contain at least one computer in the office, 82 percent of city offices have a computer.

PC/IBM compatibles are the most common type of computer. Only five percent report having a Macintosh. DOS and Windows 3.1 are the two operating systems being used the most. Twenty-seven percent of the offices are using more than one system to operate their computers.

The survey also asks which five software packages or applications offices use the most. While many different packages and applications are listed, the ones most frequently mentioned were coded. Word Perfect, Windows, Lotus, Utility Billing/CMS, and Microsoft Word are the top five most frequently mentioned packages/applications. Word Perfect is used by 133 offices while Lotus is used in 96 offices [FIG. 7]. AutoCad and Excel are also commonly used by respondents or their offices.

Two-thirds of offices have their computers networked. A large proportion of computers (82%) DO NOT have Internet access. Approximately one-fourth of offices have a mainframe or mini computer. While two of ten offices are using AS 400, Unix is the most popular operating system (55%). The remaining fourth use a variety of systems including MVS, CMS, CCSI, and Novell.

BUYING OFF OPEN STATE CONTRACTS

The third section of the questionnaire focused on the procedure of local governments buying materials or supplies through state contracts. Half of the respondents (51%) are not aware of this opportunity. County Engineers are more aware of the option to buy through state contracts than the city representatives. Eighty-eight percent of County Engineers are aware compared to 40 percent of city offices.

Of the individuals who are aware of this option, 48 percent have utilized the option. Respondents purchase such items as salt, sign posts, and vehicles off the state contracts. Public Works Directors and Engineers who have not utilized this opportunity cite wanting to buy locally or lower prices locally as main reasons for their decisions.

A majority of respondents would like to purchase software (53%) or personal computers/hardware (51%) using this approach. Thirty-eight percent would like to purchase Internet access [FIG. 8 & 9].

Financial assistance and training are the two types of assistance DOT could facilitate to help cities and counties adapt to information technologies. Approximately one-third report the DOT could provide assistance with planning, application development, and the standardization of applications.

SUMMARY

A majority of respondents are City Clerks and a majority also represent offices with less than five employees. Three-fourths of the offices are utilizing personal computers and fax machines.

Offices in the smallest communities in Iowa are the least likely to be using basic and advanced information technologies. Because size of community served is related to use of these technologies, the report may overestimate technology access and use in small cities. A lower response rate and the possibility that small communities with limited information technologies may be less likely to complete a questionnaire inflates the percentage of use being reported. While population of city served is significantly related to basic technology use, county population does not produce the same effect.

The telephone is the most popular mode of communication used by these offices. Around 40 percent of the offices are using the telephone for three-quarters of their total interactions with others. Preferences for future modes of communication indicate the desire for increased use of fax machines and e-mail.

Half of respondents are unaware of the capability to buy off state contracts. Awareness, however, does not indicate use of this procedure. Half of those aware do not make use of this opportunity. Respondents express the most interest in buying software and hardware from state DOT contracts.

Cost is the greatest barrier limiting offices from using technologies. Two types of assistance, financial and training, could be provided by the DOT to facilitate future use of information technologies.

FIG. 1: Respondent's Title

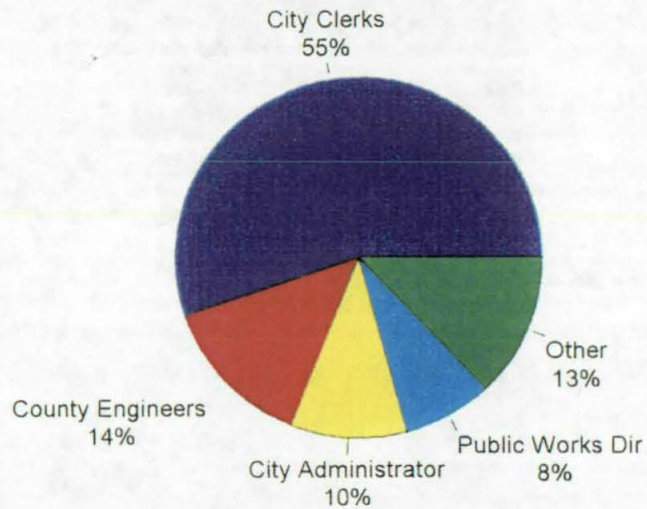


FIG. 2: City Population (Population of the City the Office Serves)

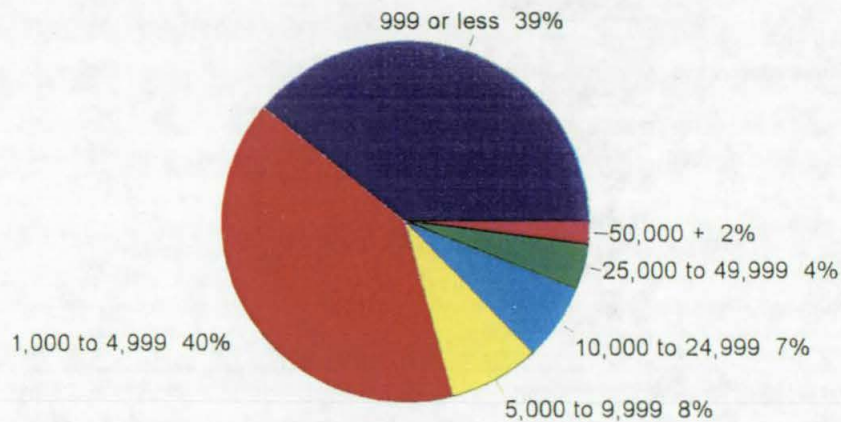


FIG. 3: Information Technology Use

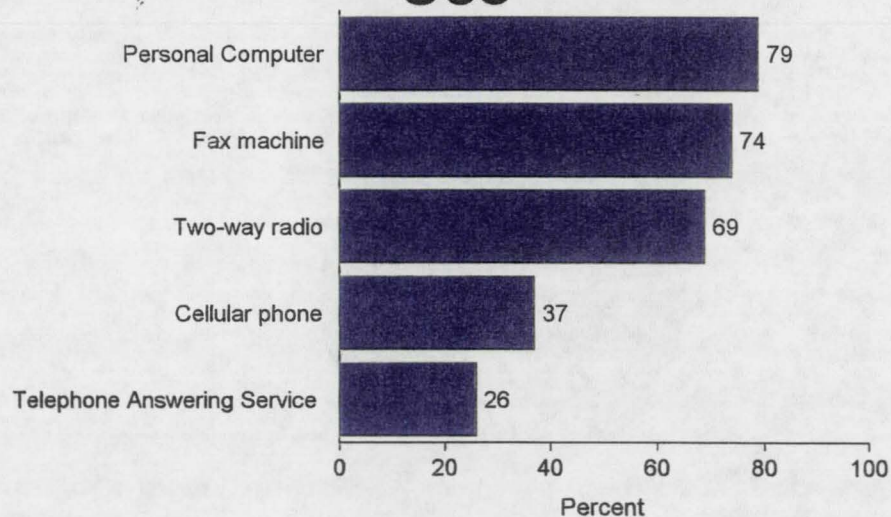


FIG. 4: Information Technology Use

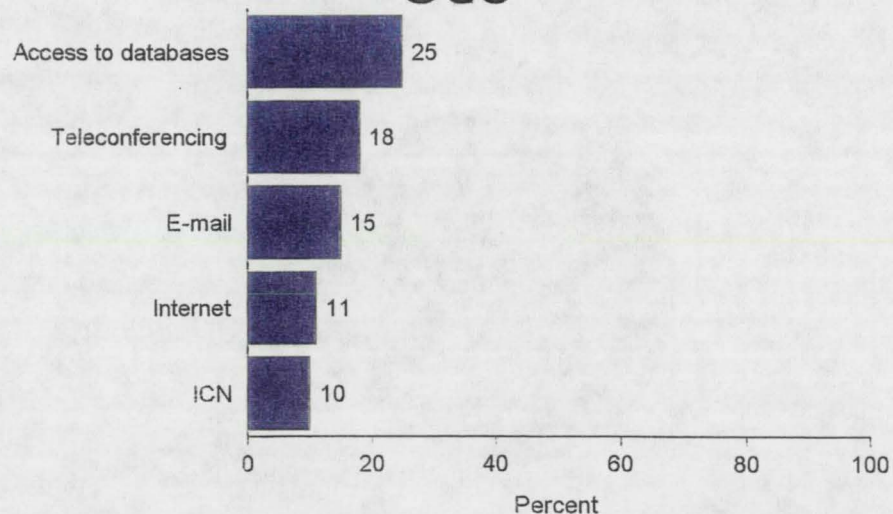


FIG. 5: Barriers
(Barriers to using information technology)

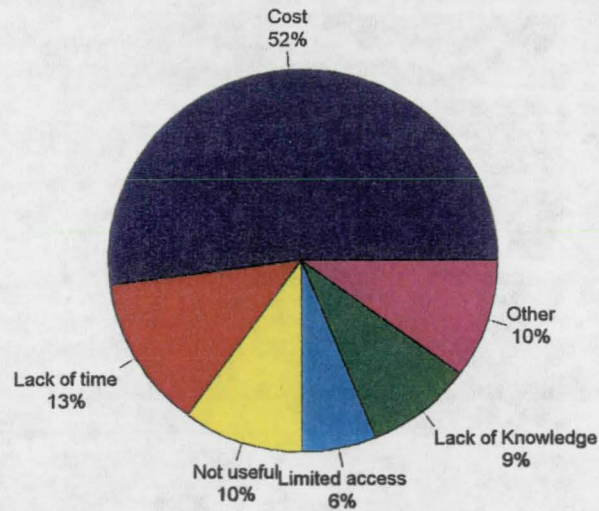


FIG. 6: Modes of Communication
25% or more of all communication

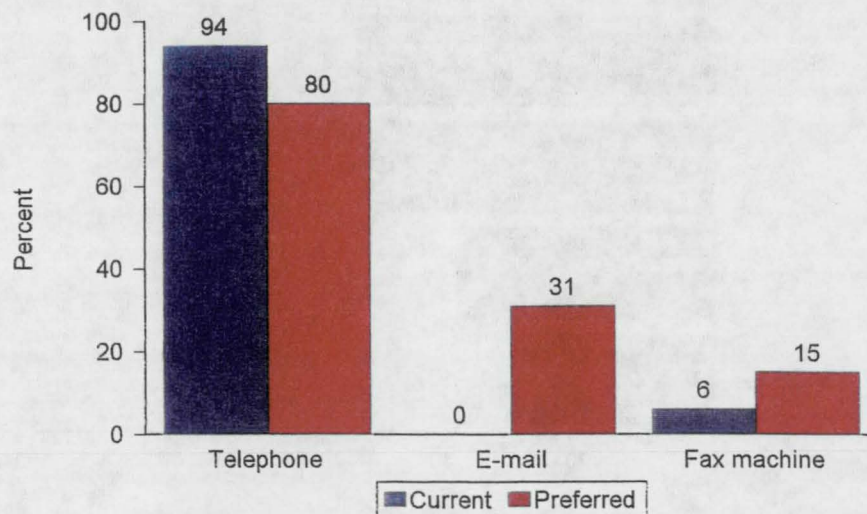


FIG. 7: Software & Applications
(Most Used)

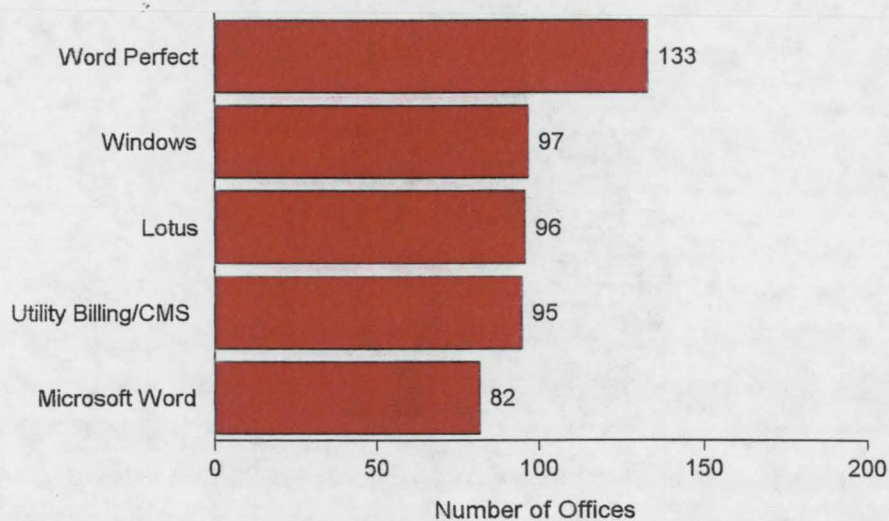


FIG. 8: Technologies Would Purchase

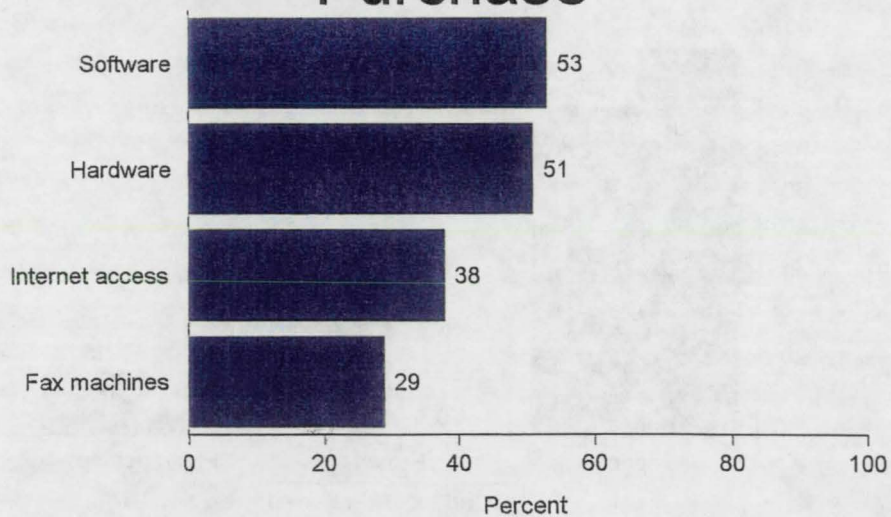
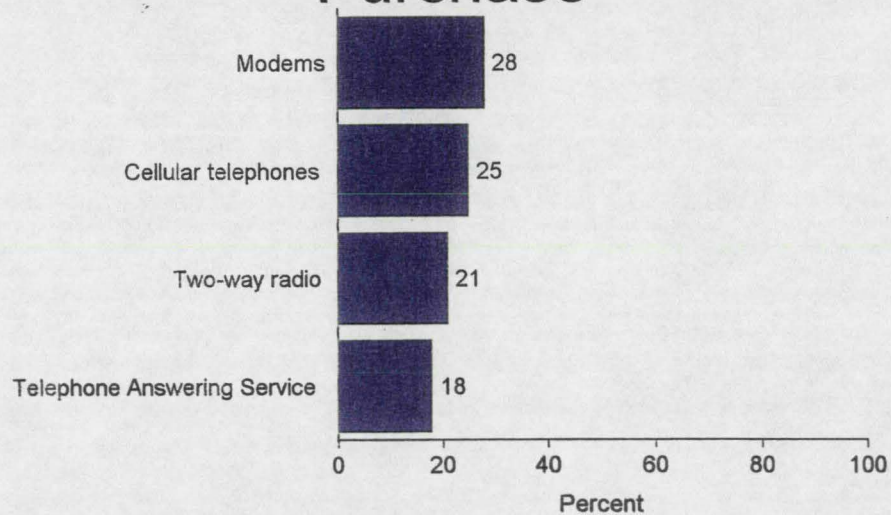


FIG. 9: Technologies Would Purchase



APPENDIX A

	<u>Total Sent</u>	<u>Completed</u>	<u>Response Rate</u>
County Engineers	99	88	89%
50,000+	8	6	75%
25,000 - 49,999	9	8	89%
10,000 - 24,999	13	11	85%
5,000 - 9,999	39	30	77%
1,000 - 4,999	206	166	81%
999 or less *	250	172	69%

* sample was drawn from the population

APPENDIX B FACTOR ANALYSIS

Table 1

Communication types	Variable #	Factor 1	Factor 2	Factor 3	Factor 4
Personal Communication	1B	.775	.127	.014	.186
E-mail	3B	.139	.882	.053	.548
Internet	5B	.051	.848	.113	-.028
Database	7B	.284	.637	.055	-.052
Fax	9B	.832	.129	.112	-.076
ICN	11B	.043	.101	.823	.120
Teleconference	13B	.244	.067	.727	-.119
Telephone answering service	15B	.055	-.025	.012	.972
Cell phone	17B	.560	.238	.227	.114
Two-way radio	19B	.850	.097	.129	-.098

Table 2

Factor	Eigenvalue	Percent of Variance	Cumulative Percent
1	3.328	33.3	33.3
2	1.442	14.4	47.7
3	1.06	10.6	58.3
4	1.036	10.4	69

DEPARTMENT OF TRANSPORTATION INFORMATION TECHNOLOGIES SURVEY

PERCENT DOCUMENT

I. CURRENT USE OF TECHNOLOGIES

A. First, we would like to know if the following information technologies are used at your work place? IF YES, please circle how often your office uses these technologies.

TECHNOLOGY	USE?			HOW OFTEN?			
	YES	NO	NOT AVAILABLE	DAILY	WEEKLY	MONTHLY	< MONTHLY
1. Personal Computer [N=469]	79%	9%	12%	91%	7%	1%	1%
2. E-mail [local]..... [N=446]	15%	41%	44%	48%	35%	11%	6%
3. Internet [World Wide Web] [N=447]	11%	42%	47%	32%	38%	17%	13%
4. Access to databases or bulletin board [N=445]	25%	36%	39%	13%	24%	43%	20%
5. Fax machine..... [N=464]	74%	11%	15%	72%	24%	2%	2%
6. ICN [Iowa Communications Network] for videoconferencing [N=447]	10%	40%	50%	—	—	23%	77%
7. Teleconferencing [N=450]	18%	40%	42%	5%	15%	28%	52%
8. Telephone answering service or voice mail [N=456]	26%	38%	36%	91%	6%	1%	2%
9. Cellular phone [N=454]	37%	32%	31%	76%	19%	2%	3%
10. Two-way radio [N=462]	69%	15%	16%	96%	3%	—	1%
11. Other [specify] _____ [N=66]	21%	44%	35%	77%	15%	8%	—

B. Which of the following are barriers to using information technology? (Circle all that apply)

	YES	NO
1. Cost [N=438]	87%	13%
2. Lack of time to learn [N=367]	56%	44%
3. Lack of knowledge or experience [N=378]	59%	41%
4. Limited access to the technology [N=361]	64%	36%
5. Don't see it as useful in my work [N=351]	34%	66%
6. Others aren't using the technology ... [N=299]	23%	77%
7. Lack of staff or technical support [N=343]	55%	45%
8. Other [specify] _____ [N=42]	59%	41%

C. What is the greatest barrier? [Please use the number from item B on the previous page.] [N=417]

Barriers	%
1. Cost.....	52%
2. Lack of time to learn	13%
3. Lack of knowledge or experience	9%
4. Limited access to the technology	6%
5. Don't see it as useful to my work	10%
6. Others aren't using the technology ..	2%
7. Lack of staff or technical support	4%
8 Other	4%

D. What should be done to help overcome these barriers? Who should be involved in providing this assistance?

E. What software packages or applications are individuals in your office currently using? [Please list the five your office uses the most and be specific, e.g., Word Perfect 6.0, Lotus 1,2,3.]

Software	1 [N=355]	2 [N=314]	3 [N=247]	4 [N=179]	5 [N=108]
Lotus	4%	14%	7%	7%	9%
Word Perfect.....	23%	7%	5%	6%	4%
Windows	13%	6%	7%	5%	6%
Road Calc./Eagle Point	2%	4%	3%	9%	6%
Microsoft Word.....	12%	6%	4%	4%	1%
Microsoft Excel	1%	12%	6%	6%	4%
Microsoft Station	---	---	1%	1%	---
Quatro Pro	---	3%	2%	---	---
Autocad.....	8%	2%	10%	7%	6%
Microsoft Works	9%	4%	5%	3%	2%
Utility Billing/CMS.....	9%	6%	12%	6%	4%
Microsoft Office.....	4%	2%	1%	1%	1%
Quicken.....	1%	3%	1%	---	---
Carte Graph	---	---	---	1%	3%
Payroll/Accounting	2%	6%	4%	6%	6%
Other.....	12%	25%	32%	38%	48%

F. If limited money or cost-sharing was available from the state, what information technology would your office be most likely to purchase? [Circle one] [N=326]

- | | |
|--|-----|
| 1. Personal Computer [hardware – monitors, memory, printers] | 41% |
| 2. Internet access [e.g., America On Line, INS services] | 24% |
| 3. Software [word processing, spreadsheets, etc.] | 13% |
| 4. Networking | 4% |
| 5. Fax machine | 5% |
| 6. Cellular phone | 2% |
| 7. Telephone answering service – voice mail | 4% |
| 8. Two-way radio | 3% |
| 9. Other [specify] _____ | 4% |

G. During an average month, how many times does your office communicate with each of the following...

	Contractors [N=374]	State DOT [N=356]	Local DOT [N=359]	Consultants [N=366]	Other Cities/ Counties [N=400]
<u># of Times</u>					
0	16%	32%	28%	21%	9%
1	17%	30%	29%	18%	11%
2	10%	8%	10%	12%	11%
3-9	28%	16%	22%	24%	37%
10-19	14%	10%	7%	14%	22%
20-49	10%	4%	4%	9%	9%
50+	5%	---	---	2%	1%

H. What percentage of all your interactions with other counties, cities, and the D.O.T. is accomplished using these forms of communications? [Total should equal 100%]

	Current Percent				
	0	1-24	25-49	50-74	75+
1. Telephone.....[N=445]	1%	5%	15%	36%	43%
2. E-mail.....[N=192]	94%	6%	---	---	---
3. Fax.....[N=315]	11%	83%	6%	---	---
4. US Postal Service.....[N=402]	1%	58%	23%	13%	5%
5. In person.....[N=332]	5%	84%	8%	2%	1%
6. Internet.....[N=180]	97%	3%	---	---	---
7. Two-way radio[N=203]	80%	19%	1%	---	---
8. Other [specify].....[N=90]	94%	6%	---	---	---

		Preferred Percent				
		0	1-24	25-49	50-74	75+
1. Telephone.....	[N=243]	1%	19%	26%	35%	19%
2. E-mail.....	[N=179]	20%	49%	19%	11%	1%
3. Fax.....	[N=213]	5%	80%	12%	3%	—
4. US Postal Service.....	[N=223]	6%	70%	16%	6%	2%
5. In person.....	[N=196]	7%	85%	6%	1%	1%
6. Internet.....	[N=138]	44%	45%	7%	3%	1%
7. Two-way radio	[N=117]	80%	19%	—	1%	—
8. Other [specify].....	[N=62]	97%	3%	—	—	—

I. What percentage of all your interactions with contractors is accomplished using these forms of communications? [Total should equal 100%]

		Current Percent				
		0	1-24	25-49	50-74	75+
1. Telephone.....	[N=430]	1%	12%	17%	35%	35%
2. E-mail.....	[N=144]	99%	1%	—	—	—
3. Fax.....	[N=259]	15%	75%	8%	1%	1%
4. US Postal Service.....	[N=338]	4%	56%	22%	13%	5%
5. In person.....	[N=322]	5%	54%	18%	18%	5%
6. Internet.....	[N=140]	100%	—	—	—	—
7. Two-way radio	[N=141]	94%	6%	—	—	—
8. Other [specify].....	[N=77]	96%	2%	1%	—	1%

		Preferred Percent				
		0	1-24	25-49	50-74	75+
1. Telephone.....	[N=225]	1%	28%	23%	31%	17%
2. E-mail.....	[N=145]	28%	44%	17%	8%	3%
3. Fax.....	[N=186]	9%	75%	12%	4%	—
4. US Postal Service.....	[N=183]	9%	69%	11%	8%	3%
5. In person.....	[N=179]	3%	62%	15%	13%	7%
6. Internet.....	[N=106]	60%	33%	5%	2%	—
7. Two-way radio	[N=85]	94%	4%	2%	—	—
8. Other [specify].....	[N=46]	96%	—	2%	2%	—

- J. What sorts of communications [forms, documents, plans, etc.] do you think information technologies will be most useful for in the future? How do you foresee these technologies being used in your office?

II. COMPUTER INFORMATION

- K. How many computers do you have in your office?

	0	1	2	3-4	5-9	10+
1. PC/IBM compatible [e.g., Gateway, Hewlett Packard] [N=418]	16%	28%	16%	17%	19%	4%
2. MAC [Macintosh] [N=137]	95%	4%	---	---	1%	---
3. Other [specify] _____ [N=148]	71%	18%	7%	2%	1%	1%

- L. What type of operating system are you using?

	0	1	2	3-4	5-9	10+
1. MAC [e.g., Macintosh - system 7] [N=64]	92%	4%	2%	---	2%	---
2. DOS based [N=192]	19%	41%	18%	10%	10%	2%
3. Windows 3.1 [N=189]	19%	33%	14%	16%	16%	2%
4. Windows 95 [N=146]	29%	36%	21%	7%	6%	1%
5. OS/2 [N=58]	95%	5%	---	---	---	---
6. Windows NT [N=69]	77%	14%	4%	1%	3%	1%
7. Other [specify] _____ [N=68]	60%	25%	6%	3%	6%	---

- M. Are your office computers networked? [N=405]

1. Yes 67%
2. No 33%

N. How many computers at your office have Internet access? [N=422]

0	82%
1	12%
2	4%
3	1%
8	1%

O. Does your office have a mainframe or a mini computer? [N=417]

1. Yes	24%
2. No	76%

P. What operating system [e.g., MVS, VM, UNIX] are you using? [N=399]

Operating System	%
MVS.	2%
UNIX	55%
AS 400	20%
RPG 2	4%
DOS	8%
Unysis-Burroughs	1%
CMS	1%
IBM Syr. 3600	3%
CCSI	1%
Novell.	3%
System 36	1%
SSP	1%

III. BUYING OFF OPEN STATE CONTRACTS

Having local governments buy through state D.O.T. contracts is common for such commodities as gravel and fuel. This capability is now available for some information technologies.

Q. Were you aware of local governments' ability to buy off of some state contracts?
[N=444]

1. Yes 49% 2. No [GO TO T] 51%

R. IF YES, in the past 12 months, have you utilized this opportunity? [N=438]

1. Yes 48% 2. No 52%

S1. IF YES, what did you purchase?

S2. IF NO, why haven't you utilized buying off state contracts?

T. What information and communication technologies would you like to purchase using this approach? [Check all that apply]

Personal computers/hardware [N=246]	51%
Fax machines [N=138]	29%
Cellular telephones [N=122]	25%
Telephone answering service or voice mail [N=88]	18%
Software [N=254]	53%
Modems [N=134]	28%
Two-way radio [N=100]	21%
Internet access [N=182]	38%
Other [specify] [N=10]	2%

U. What assistance could D.O.T. provide you in your use of information technologies?
[Circle all that apply]

- | | |
|--|-----|
| 1. Financial [N=286] | 59% |
| 2. Training [N=266] | 55% |
| 3. Planning [N=154] | 32% |
| 4. Applications development [N=164] | 34% |
| 5. Standardization of applications [N=169] | 35% |
| 6. Don't know [N=78] | 16% |
| 7. Other [specify] [N=5] | 1% |

V. Do you have any additional comments concerning information technologies?

IV. DEMOGRAPHICS

W. What is your title? [N=468] _____

Title	%
County Engineers	14%
City Clerk.	55%
City Engineer	2%
Public Works Director.	8%
City Manager	2%
Other	6%
City Administration	10%
Assistant to Engineer	3%

X. How many employees work in your office? [N=454] # _____

# of Employees	%
0	3%
1	30%
2	18%
3	12%
4	9%
5	9%
6	6%
7	5%
8	3%
9	2%
10	2%
30	1%

Y. What is the population of the City or County your office serves?

City [N=396]

1.	50,000 +	2%
2.	25,000 - 49,999	4%
3.	10,000 - 24,999	7%
4.	5,000 - 9,999	8%
5.	1,000 - 4,999	40%
6.	999 or less	39%

County [N=140]

1.	50,000 +	12%
2.	25,000 - 50,000	14%
3.	10,000 - 24,999	40%
4.	Below 10,000	34%

THANKS FOR YOUR ASSISTANCE!!!